ALLAN B. DIAMOND (*Pro Hac Vice*)
adiamond@diamondmccarthy.com
KATHY BAZOIAN PHELPS (155564)
kphelps@diamondmccarthy.com
BRIAN R. HOGUE (*Pro Hac Vice*)
bhogue@diamondmccarthy.com
DIAMOND McCARTHY LLP
1999 Avenue of the Stars, Suite 1100
Los Angeles, CA 90067
Telephone: (310) 651-2997

CHRISTOPHER D. SULLIVAN (148083)
csullivan@diamondmccarthy.com
KAREN K. DIEP (305587)
kdiep@diamondmccarthy.com
DIAMOND McCARTHY LLP
150 California Street, Suite 2200
San Francisco, CA 94111
Telephone: (415) 692-5200

Attorneys for Defendant
HVI CAT CANYON, INC.
f/k/a GREKA OIL & GAS, INC.

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

WESTERN DIVISION

UNITED STATES OF AMERICA, ET AL., Plaintiffs, v. HVI CAT CANYON, INC. f/k/a GREKA OIL & GAS, INC., Defendant.	Case No. CV11-05097 FMO (SSx) **DEFENDANT'S POST-TRIAL PROPOSED FINDINGS OF FACT** Judge: Hon. Fernando M. Olguin

TABLE OF CONTENTS

I. INTRODUCTION 1

A. SUMMARY OF CASE 1

B. RELEVANT PROCEDURAL HISTORY 2

II. THE UNITED STATES DOES NOT HAVE JURISDICTION OVER THE DISCHARGES AT ISSUE UNDER THE CLEAN WATER ACT ("CWA") BECAUSE THEY WERE NOT DISCHARGES INTO OR UPON NAVIGABLE WATERS OF THE UNITED STATES. 4

A. THE SISQUOC CREEK AND SPRING CANYON TRIBUTARY ARE NOT THEMSELVES JURISDICTIONAL WATERS UNDER THE CWA. 4

B. THE EPHEMERAL DRAINAGES CALLED SISQUOC CREEK AND SPRING CANYON TRIBUTARY DO NOT HAVE A SIGNIFICANT NEXUS TO A TRADITIONAL NAVIGABLE WATERWAY ("TNW"). 5

C. HVI HAS FACED OVERLY AGGRESSIVE AND UNFAIR ENFORCEMENT ACTIONS 7

D. HVI IS NOT LIABLE FOR GROSS NEGLIGENCE OR WILLFUL MISCONDUCT FOR ANY DISCHARGES 14

1. HVI Is And Has Been A Responsible Oil Operator 14

2. Preventative Measures Taken By HVI 15

III. HVI'S ALLEGED LIABILITY FOR OPA VIOLATIONS RELATING TO SPCC AND FRP REGULATIONS 16

A. MOST OF HVI'S FACILITIES ARE NOT REASONABLY EXPECTED TO DISCHARGE OIL IN HARMFUL QUANTITIES INTO NAVIGABLE WATERS OF THE UNITED STATES OR ADJOINING SHORELINES 16

1. Whether the Lloyd, Los Flores, Security, U-Cal, and Williams B Facilities Could Reasonably Be Expected to Discharge Harmful Quantities of Oil Into or Upon Navigable Waters of the United States. 18

2. Whether the Lakeview and Battles Could Reasonably Be Expected to Discharge Harmful Quantities of Oil Into or Upon Navigable Waters of the United States. 21

3. Whether the Casmalia and Escolle Facilities Could Reasonably Be Expected to Discharge Harmful Quantities of Oil Into or Upon Navigable Waters of the United States. 22

B. ALLEGED SPCC VIOLATIONS 23

1. HVI Had Implemented and Developed a Flowline Maintenance Program At All Relevant Times. 23

2. All Active Pipelines are Mapped. 26

3. HVI Adequately Conducted Visual Inspection By Foot or Vehicle. 26

4. HVI Performs Pressure Testing On Its Active Flowlines. 31

5. Pressure Maintenance for Limited and “Buried” Production Pipelines Are Also Conducted. 34

6. HVI’s “Aggressive” and “Proactive” Nature Regarding Pipeline Replacement. 35

7. HVI Evaluated the Corrosivity of Its Pipelines. 37

C. OTHER SPCC VIOLATIONS 38

1. SPCC Compliant Plans 38

2. Other SPCC Alleged Violations 39

3. Containment and Drainage Controls 40

4. Accumulation of Discharged Oil 41

5. Compatible Containment for Oil Storage 43

6. HVI Provided SPCC Training. 45

D. HVI’S COMPLIANCE WITH FRP REGULATIONS 46

E. HVI’S DISCHARGES HAVE HAD MINIMAL NEGATIVE ENVIRONMENTAL IMPACTS 49

1. Crude Oil 49

2. Produced Water 50

3. Potential For Harm Was Small 51

F. THE FIVE CONTESTED SPILLS 52

1. December 7, 2005 53

2. July 16, 2007 57
3. December 7, 2007 62
4. January 5, 2008 65
5. January 29, 2008 68
G. THE STIPULATED SPILLS 69
H. THE MAXIMUM STATUTORY PENALTY AVAILABLE 71
I. THE PENALTY FACTORS UNDER THE CWA 71
1. Seriousness 71
2. Economic Benefit 79
J. CULPABILITY 82
1. Other Penalties For Same Incidents 88
2. History Of Prior Violations 89
3. Mitigation Efforts 89
4. Economic Impact 90
5. Other Matters As Justice May Require 91
K. CALIFORNIA STATE CLAIMS 91
L. INJUNCTIVE RELIEF IS NOT APPROPRIATE OR NEEDED 93
1. No Notice of Violation Regarding SPCC 93
2. No Impact on a TNW 95
3. The Reported Discharge Volume Are Small 96
4. The Recent Spills Were Not All Caused By HVI's Flowlines 98
5. The Impending Change to the 2015 WOTUS Rule Further Demonstrates Injunctive Relief is not Warranted. 99

I. INTRODUCTION

In accordance with the Court's Order, dated November 15, 2018 [Dkt. 461], Defendant HVI Cat Canyon, Inc. f/k/a Greka Oil & Gas, Inc. ("HVI") submits its Post-Trial Proposed Findings of Fact in opposition to the proposed findings of fact of the United States of America (the "United States" or "Government") and the proposed findings of fact of the People of the State of California (the "State") (collectively, "Plaintiffs"), as follows:

A. SUMMARY OF CASE

1. This is a civil action for civil penalties, injunctive relief, cost recovery, and damages brought by the United States of America ("United States" or "Government") and the People of the State of California, *ex rel.* California Department of Fish and Wildlife ("CDFW") and California Regional Water Quality Control Board, Central Coast Region ("Regional Board") (all collectively, "Plaintiffs") against HVI Cat Canyon, Inc. ("HVI"), formerly known as Greka Oil & Gas, Inc., an oil producer operating in Santa Barbara County) References in the record to Greka generally refer to HVI.

2. Plaintiffs allege that HVI violated portions of the Clean Water Act ("CWA"), 33 U.S.C. § 1251 *et seq.*; the Oil Pollution Act of 1990 ("OPA"), 33 U.S.C. §2701 *et seq.*; the California Water Code §13000 *et seq.*; and the California Fish and Game Code § 5650 *et seq.* by (a) releasing disputed quantities of oil and produced water into ephemeral rainfall drainages, Dkt. No. 442 at ¶ 2 (Final Pretrial Conf. Order), and (b) for alleged violations of Spill Prevention, Control, and Countermeasure plan ("SPCC") and Facility Response Plan ("FRP") regulations under 40 C.F.R. Part 112. Dkt. No. 442 at ¶ 7a. (Final Pretrial Conf. Order).

3. The operative pleading is the First Amended Complaint as modified by, among other things, the Pre-Trial Order. Dkt. No. 442 at ¶ 1 (Final Pretrial Conf. Order).

4. The United States alleges five claims for relief stemming from ten oil

releases from HVI's Bell Facility (June 8, 2005; July 13, 2005; August 11, 2005; July 16, 2007; December 7, 2007; January 29, 2008; December 27, 2008; May 1, 2009; October 14, 2010; and December 21, 2010), two oil releases from HVI's Davis Facility (December 7, 2005 and January 5, 2008), and for alleged violations of SPCC and FRP regulations under 40 C.F.R. Part 112. Dkt. 472 (U.S. Proposed Facts), ¶ 7a.

5. The State of California alleges four claims for relief seeking volume based penalties under California Water Code Section 13350 for the discharges that occurred on July 16, 2007, December 7, 2007, January 5, 2008, and January 29, 2008. Dkt. No. 442 at ¶ 7a. (Final Pretrial Conf. Order). The State of California alleges an additional twelve claims for relief seeking civil penalties, natural resources damages, and/or administrative costs under California Fish & Game Code Sections 5650 *et seq*., 12016, and 13013 for events that occurred on July 16, 2007, December 7, 2007, January 5, 2008, January 24, 2008, January 27, 2008, January 29, 2008, December 27, 2008, May 1, 2009, July 2, 2009 and October 14, 2010. Dkt. No. 442 at ¶ 7a.

6. The Defendant, HVI, contested the jurisdiction of the United States and this Court on the basis of several reasons set forth in its Motion to Dismiss, in several motions for summary judgment, and as described below.

B. RELEVANT PROCEDURAL HISTORY

7. This case was filed on June 17, 2011. Dkt. No. 1 (Complaint for Civil Penalties).

8. HVI filed a motion to dismiss on September 9, 2011. That motion was denied on December 12, 2011 and an amended order denying the motion to dismiss was entered on January 16, 2013. Dkt. No. 6 (Notice of Motion and Motion to Dismiss); Dkt. No. 51 (Order Denying Defendant's Motion to Dismiss).

9. Defendant filed a motion for summary judgment, which this Court

denied in most respects on September 30, 2016. This Court granted summary judgment in favor of HVI on two issues regarding the State claims, as discussed below. Dkt. No. 205 (Order Re: Pending Motion).

10. The United States filed a motion for summary judgment, which this Court granted in large part and denied in part on May 20, 2018, also discussed below. Dkt. No. 307 (Order Re: Pending Motion).

11. On November 6, 2014, HVI filed a motion for terminating sanctions, or alternatively, other appropriate sanctions stemming from, among other things, the CFDW failure to issue a litigation hold. Dkt. No. 98 (Order for Granting HVI Cat Canyon, Inc.'s Motion for Terminating Sanctions)

12. HVI's motion was referred to a Magistrate Judge who issued a Report and Recommendation ("R&R") denying the request for terminating sanctions and instead recommended that several witnesses be excluded from testifying and that CDFW pay attorneys' fees and costs relating to certain depositions and HVI's motion. *See* Dkt. No. 134, R&R at 16-17. This Court subsequently accepted the findings and conclusions with some modification. *See* Dkt. 50.

13. HVI subsequently filed a motion for attorney's fees (Dkt. No. 221), which this Court referred to the Special Master. Dkt. No. 237. The Special Master recommended an award of attorney's fees and costs and set a deadline for payment. Dkt. No. 272. This Court then referred the matter the Special Master to consider what impact, if any, the Supreme Court's decision in *Goodyear Tire & Rubber Co. v. Haeger*, 137 S. Ct. 1178 (2017), had on the R&R in Dkt. No. 272.

14. The Special Master amended his R&R, finding the imposition of sanctions was proper, but reducing the amount of attorney's fees. Dkt. No. 287-1.

15. On September 15, 2108, this Court sustained the State's objections to the amended R&R and overruled provisions in the order requiring the State to pay attorney's fees. Dkt. No. 362.

16. This case was tried as a bench trial in accordance with procedures in this Court's Order dated June 7, 2018. Dkt. Nos. 447, 448, 451, 454 (Minutes of Court Trial)

II. THE UNITED STATES DOES NOT HAVE JURISDICTION OVER THE DISCHARGES AT ISSUE UNDER THE CLEAN WATER ACT ("CWA") BECAUSE THEY WERE NOT DISCHARGES INTO OR UPON NAVIGABLE WATERS OF THE UNITED STATES.

17. The two releases as to which this Court did not find liability in its Summary Judgment Order are (a) the December 27, 2008 discharge and (b) the May 1, 2009 discharge. Dkt. 307 at 37:14-19.

18. Both of these discharges were from the Bell 161 header, which at most meant the oil was released into Sisqouc Creek and Spring Canyon Tributary. Dkt. 473 (U.S. Prop. Concl. of Law), ¶¶19–20.

19. This Court found that "there [were] triable issues of fact as to whether Sisqouc Creek and Spring Canyon Tributary possess a significant nexus to a TNW to qualify as navigable waters under the CWA." Dkt. 307 at 37:14-16.

A. THE SISQUOC CREEK AND SPRING CANYON TRIBUTARY ARE NOT THEMSELVES JURISDICTIONAL WATERS UNDER THE CWA.

20. The Sisquoc Creek and Spring Canyon Tributary themselves are not traditional navigable waters of the United States or waters of the United States. Both the Sisquoc Creek and Spring Canyon Tributary are not waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce. *See, e.g.*, Josselyn Decl, ¶ 11, 12, 14, 15 & 20; HVI0102.

21. Spring Canyon Tributary and Sisquoc Creeks are in a dry desert area for most of the year and are dry except during the rainy season. Dkt. No. 361-3, (Josselyn Decl.) at ¶¶ 30, 32, 33, 35, 68-69, 81-85; HVI0103; HVI0126.

22. Spring Canyon Tributary and Sisquoc Creeks are ephemeral rainfall drainages. Sisquoc Creek and Spring Canyon Tributary only contain surface water that flows in direct response to precipitation. Dkt. No. 361-3, (Josselyn Decl.) at ¶¶

73–75, 79 (24:20-25:01), 80-85.

23. Spring Canyon Tributary only exhibits a bed and banks near its juncture with Spring Canyon Creek. Dkt. No. 361-3, (Josselyn Decl.) at ¶¶ 47, 66; HVI0104

24. On average, Spring Canyon Tributary flows two days a year. Dkt. No. 361-3, (Josselyn Decl.) at ¶¶ 66-67; HVI0125.

25. Spring Canyon Tributary contributes less than 1% of the total water in the Santa Maria Estuary. Dkt. No. 361-3, (Josselyn Decl.) at ¶¶ 6-69, HVI0125.

26. The Sisquoc Creek and Spring Canyon Tributary are not water features that convey perennial or intermittent flow downstream into waters of the United States in a typical year. Dkt. No. 361-3, (Josselyn Decl.) at ¶¶ 76-81.

27. No wetlands are adjacent to Sisquoc Creek and Spring Canyon Tributary and they are not themselves wetlands. Dkt. No. 361-3, (Josselyn Decl.) at ¶¶ 23, 44.

28. The Spring Canyon Tributary is separate from the Palmer Road Creek and is not connected to the Palmer Road Creek. Dkt. No. 361-3, (Josselyn Decl.) at ¶ 32.

B. THE EPHEMERAL DRAINAGES CALLED SISQUOC CREEK AND SPRING CANYON TRIBUTARY DO NOT HAVE A SIGNIFICANT NEXUS TO A TRADITIONAL NAVIGABLE WATERWAY ("TNW").

29. The drainages that were the subject of the two HVI oil releases at issue do not possess a significant nexus to a traditional navigable waterway "TNW."

30. As used herein, consistent with this Court's Summary Judgment Order, Dkt. 307 at 7:5–8, n.7, the term TNW refers to "navigable waters in the traditional sense" as described by Justice Kennedy in his concurring opinion in *United States v. Rapanos,* 547 U.S. 715, 779 (2006) (Kennedy, J., concurring.) In *Rapanos*, the Supreme Court considered whether waters "that are not navigable in the traditional

sense" (*id.* at 767) and not "navigable-in-fact" waterways" (*id.* at 766), could be considered as waters of the United States, or "navigable waters" under the CWA.

31. The nearest TNW to the Spring Canyon Tributary and Sisquoc Creek is the Santa Maria River Estuary. Dkt. 30-7 n.7; Josselyn Dec. ¶15.

32. The Bell 161 Header is located 30.3 miles away from its nearest TNW. Jossleyn Dec'l, ¶15, TREX HVI0122; TREX HVI0123.

33. The Bell Facility is located 30.3 miles away from its nearest TNW. Jossleyn Dec'l, ¶15, TREX HVI0122; TREX HVI0123

34. Sisquoc Creek and Spring Canyon Tributary are not "relatively permanent" or "continuously flowing" waters; they are both located tens of miles from the nearest TNW; and both only (a) contribute a tiny fraction, less than one percent of the water, in the nearest TNW, (b) on at most one to three days in a typical year. *See* Dkt. 361-3 (Josselyn Dec.), ¶¶22–29, 41, 68–69, 71.

35. The Sisquoc Creek and Spring Canyon Tributary do not themselves significantly contribute to the ecological balance of their nearest TNW. *See* Dkt. 361-3 (Josselyn Dec.), ¶¶ 42- 71, 101-11.

36. The relevant reach for the Sisquoc Creek and Spring Canyon Tributary is limited to the creek and tributary itself and does not include the drainages of a higher order. *See* Dkt. 361-3 (Josselyn Dec.), ¶¶ 86-100, HVI0121, HVI0127.

37. Given the foregoing, and based on the evidence presented at trial, the Court concludes that neither the Sisquoc Creek nor the Spring Canyon Tributary have a significant nexus to a TNW and, as a result, HVI did not discharge oil from the Bell 161 Header (located on the Bell Facility) on December 27, 2008 or May 1, 2009[1] into or upon navigable waters of the United States or adjoining shorelines in quantities that may be harmful.

---

[1] This discharge occurred when the creek was dry. TREX US1192 (CAER Report); Dkt. No. 92-3 (SUF D14).

38. The United States based its decision to institute the Gato Ponds removal action associated with the Bell Facility based upon its incorrect conclusion that the Gato Ponds posed a substantial threat of an oil discharge into the Sisqouc Creek, which was located approximately 100 feet away. Dkt. 307 at 28:11–18, n.25.

39. Therefore, HVI is not liable under the CWA or OPA for the December 27, 2008 or May 1, 2009 discharges into the Spring Canyon Tributary or the substantial threat of a discharge from the Gato Ponds into the Sisquoc Creek that led to the Gato Ponds removal action in April 2008.

C. HVI HAS FACED OVERLY AGGRESSIVE AND UNFAIR ENFORCEMENT ACTIONS

40. HVI currently was one of the largest on-shore oil companies producing in San Barbara County, yet is very small when compared to oil producers in other counties within California. Dkt. No. 427-4 (Grewal Decl.) at ¶ 26.

41. HVI is formerly known as Greka Oil & Gas, Inc. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 1.

42. HVI tries to be a responsible operator, but has faced aggressive enforcement actions. Dkt. No. 427-4 (Grewal Decl.) at ¶ 27.

43. HVI established safety, regulatory, and production departments from the start with stringent daily reporting requirements and weekly compliance and production meetings. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 12; Dkt. No. 361-1 (Whalen Decl.) at ¶ 20.

44. Anti-oil interest groups from both inside and outside of Santa Barbara County have targeted oil production in Santa Barbara in an effort to try and eliminate companies from producing oil in Santa Barbara. Dkt. No. 427-4 (Grewal Decl.) at ¶ 25.

45. HVI operates in a heavily regulated industry, requires numerous permits to operate, and regularly passes inspection from the key regulatory

agencies, including the California Division of Oil, Gas, and Geothermal Resources ("DOGGR"), Santa Barbara County Air Pollution Control District ("APCD"), California's Regional Water Quality Control Board ("RWQCB"), Santa Barbara Planning Department ("SBPD"), Santa Barbara Fire Department ("SBFD"), among others, during the relevant period. Dkt. No. 427-4 (Grewal Decl.) at ¶ 23.

46. California's stringent regulations and lengthy permitting processes are the toughest in the nation. Dkt. No. 427-4 (Grewal Decl.) at ¶ 24.

47. Regulatory agencies have taken actions against HVI for many years. Dkt. No. 427-4 (Grewal Decl.) at ¶¶ 27-30, 34.

48. Throughout HVI's operating history in Santa Barbara County it has faced resistance from state and local agencies. Dkt. No. 427-4 (Grewal Decl.) at ¶¶ 27-30. HVI grew to believe these agencies were determined to prevent any oil and gas production, both on-shore and off-shore. Dkt. No. 427-4 (Grewal Decl.) at ¶ 27.

49. HVI gained confidence that it was a responsible producer of oil and gas in Santa Barbara County because it was able to successfully defend against a number of actions – for example, HVI was reassured from defeating an attempt by the Santa Barbara County District Attorney to get a preliminary injunction to shut down its operations. Dkt. No. 427-4 (Grewal Decl.) at ¶ 35.

50. Prior to this lawsuit, HVI was able to successfully resolve many alleged violations in Santa Barbara County. Dkt. No. 427-4 (Grewal Decl.) at ¶¶ 27-30, 34.

51. HVI operates in three counties – Santa Barbara, Orange, and Kern (and was a general partner for an operator in Ventura County for several years) with the same standard operating procedures. Dkt. No. 427-4 (Grewal Decl.) at ¶ 36; Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 101. Prior to, and throughout the relevant time-period, for this litigation HVI had a clean history with respect to alleged violations, but no spill or spills are alleged in this litigation occurred in those other counties

(Orange, Kern, or Ventura). Dkt. No. 427-4 (Grewal Decl.) at ¶ 36; Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 101.

52. The EPA On-Scene-Coordinator, Robert Wise, developed an extremely hostile relationship with HVI and its employees. Dkt. 427-2 (DeVegar Decl.) at ¶¶ 63, 67-72; Dkt. No. 427-4 (Grewal Decl.) at ¶ 56.

53. As early as June 2005, EPA SPCC Inspector Peter Reich asked that Mr. Wise to go to an HVI release and "put a little fire under Greka's ass." Dkt. No. 478 at 20:22-21:01 (10/22/2018 Trial Tr. Vol. II, Test. of Wise) (referencing TREX HVI037). Mr. Wise found this request appropriate. Dkt. No. 478 at 21:02-03 (10/22/2018 Trial Tr. Vol. II, Test. of Wise).

54. The first pollution report by Robert Wise in connection with the December 2005 spill at the Zaca facility described the release as one of 50 barrels of API 11 crude oil and 50 gallons of produced water that flowed down an access road into an intermittent dry creek. Dkt. No. 478 at 22:03-13 (10/22/2018 Trial Tr. Vol. II, Test. of Wise); (references TREX US0783).

55. Mr. Wise admits that he later changed that description to read "an unnamed intermittent tributary Zaca Creek in the second pollution report." Dkt. No. 478 at 22:14-17 (10/22/2018 Trial Tr. Vol. II, Test. of Wise). Apparently, he was concerned about whether the EPA had jurisdiction over the area into where the oil was discharged.

56. HVI was forced to close the Zaca Facility during the clean-up after the December 7, 2005 spill. Dkt. No. 478 at 24:18-21 (10/22/2018 Trial Tr. Vol. II, Test. of Wise).

57. Mr. Wise admits that he was disappointed that HVI was allowed to start back up its oil and gas production on the Zaca facility. Dkt. No. 478 at 25:09-12 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise); TREX HVI061 ("County fire came under pressure from a member of the Board of Supervisors to allow Greka to

start up. This is not consistent with what I was promised by the EPA and by Building and Safety.”).

58. Mr. Wise made a phone call to Mike Brown of Santa Barbara County informing him that the county could be liable if another spill occurred before they could fix the problem with the December 7, 2005. Dkt. No. 478 at 25:21-26:03 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise); TREX HVI062.

59. However, Mr. Wise admits that he is not aware of any legal reason that Santa Barbara County in fact could have been liable. Dkt. No. 478 at 26:04-07 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

60. Mr. Wise also called EPA’s Mark Calhoon in the spring of 2006 telling Mr. Calhoon that he wanted to issue orders for clean-up of the HVI spills at that time. Dkt. No. 478 at 26:18-21 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise). Mr. Calhoon, however, had doubts because the connection to any waters of the United States was stretched and it cost a lot of money, over $300,000, the last time around. Dkt. No. 478 at 26:25-27:14 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise); TREX HVI045.

61. Mr. Wise admits that his first report on July 16, 2007 stated that the Palmer Road Creek was dry, and then he changed it in his second report to indicate that water was involved and a sheen was observed. Dkt. No. 478 at 28:06-15 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise); TREX HVI042.

62. Mr. Wise also admits that one of his reports also stated that it was going to rain in July 2007 in Santa Barbara County, but is unable to identify the precise source from which he supposedly obtained this information. Dkt. No. 478 at 28:20-30:15 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

63. In reality, it did not rain the next week in Santa Barbara County in July 2007. Dkt. No. 478 at 30:16-18 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise); Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 31.

64. CDFW's Lieutenant Gross did not request the EPA's involvement to assist them with the cleanup of the July 16, 2007 spill at the Bell Facility. Dkt. No. 465 at 87:24:88:02 (10/22/2018 Trial Tr. Vol. I, Test. Of Gross). Lieutenant Gross believed that CDFW could handle the cleanup at the state level. Dkt. No. 465 at 88:03-09 (10/22/2018 Trial Tr. Vol. I, Test. Of Gross).

65. Even though Lieutenant Gross did not ask for assistance, the EPA became involved in the cleanup with Robert Wise becoming the on-scene coordinator. Dkt. No. 465 at 88:10-17 (10/22/2018 Trial Tr. Vol. I, Test. Of Gross).

66. According to the EPA's Robert Wise, the CDFW requested assistance though he could not identify the particular person who made this request on behalf of the CDFW. Dkt. No. 478 at 32:07-15 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

67. When Robert Wise arrived at the Zaca facility on January 6, 2008 in connection with the January 5, 2008 spill, he stayed on the facility in a motor home for about the next four to six months. Dkt. No. 478 at 34:17-22 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

68. During that time frame, there were unusually heavy rains that impeded the clean-up efforts. Dkt. No. 478 at 34:23-35:01 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

69. In connection with the January 5, 2008 spill, the EPA advised the use of water sparging to remove heavy oil from the Palmer Road Creek. Dkt. No. 478 at 35:02-04 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

70. In using heavy water sparging to remove oil from this creek, it caused oil in the creek to come up. The EPA cannot determine whether it was old or new oil. Dkt. No. 478 at 35:05-12 and 38:21-24 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

71. Robert Wise suggested removing the asphalt surface below the Palmer Road Creek during the first weeks he was at the Bell Facility in connection with the July 16, 2007 spill Dkt. No. 465 at 88:18-88:22 (10/22/2018 Trial Tr. Vol. I, Test. Of Gross). Mr. Wise made this suggestion despite CDFW's Lieutenant Gross informing Mr. Wise that it was a bad idea because doing so would cause more harm than good to the environment. Dkt. No. 465 at 88:23-89:01(10/22/2018 Trial Tr. Vol. I, Test. Of Gross).

72. In particular, Mr. Wise in March of 2008 ordered HVI to remove over one-half mile of old asphalt under the Palmer Road Creek. Dkt. No. 465 at 98:15-22 (10/22/2018 Trial Tr. Vol. I, Test. Of Gross) (referencing TREX HVI002).

73. CDFW's Lieutenant Gross believed that cleaning up the historical asphalt that lined the creed bed would further damage the environment. Dkt. No. 465 at 98:23-99:01 (10/22/2018 Trial Tr. Vol. I, Test. Of Gross).

74. The basis for his opinion was that the mechanical removal of the asphalt would require a lot of excavation work, which would change the profile of the creek and there could be erosion issues. Dkt. No. 465 at 99:03-08 (10/22/2018 Trial Tr. Vol. I, Test. Of Gross). This was conveyed to Mr. Wise as early as July of 2007. Dkt. No. 465 at 99:09-11 (10/22/2018 Trial Tr. Vol. I, Test. Of Gross).

75. Despite Lieutenant Gross's advice, Mr. Wise shortly after the January 29, 2008 spill decided to dig an exploratory trench that was about seven feet deep in the Palmer Road Creek, also known as asphalt creek. Dkt. No. 478 at 37:08-17 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

76. Predictably, Mr. Wise only found asphaltic crude down to that seven foot depth and as such, stopped the dig. Dkt. No. 478 at 37:19-20 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise). Mr. Wise then had the hole filled with concrete. Dkt. No. 478 at 37:21-23 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

77. A substantial amount of government resources were put towards HVI in 2008. Dkt. No. 478 at 42:02-04 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

78. Mr. Wise believes that oil would need to travel over a lot of dried creek bed in the area of HVI's facility before the oil could reach any actual waters if it is not raining. Dkt. No. 478 at 27:11-14 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

79. Between 2005 and 2009, Mr. Wise spoke with more than ten different politicians regarding HVI: Supervisors Firestone, Chamberlain, Santano, Wolfe, Gray, and Carbajal; Assemblyman Nava, Congressman Lois Capps; and U.S. Senators Barbara Boxer and Diane Feinstein. Dkt. No. 478 at 23:07-14 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

80. Mr. Wise spoke at press conferences routinely about the EPA's efforts in regards to HVI. Dkt. No. 478 at 42:05-07 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

81. Mr. Wise admits that he encouraged the Santa Barbara County Department Fire Department to shut HVI operations down at the Zaca facility in early January of 2008. Dkt. No. 478 at 40:01:04 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise) TREX HVI012. In fact, he also admits that he was unhappy when they didn't shut down HVI for as long as he wanted. Dkt. No. 478 at 40:05-07 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

82. Mr. Wise admits that he attended a meeting in 2008 with Assemblyman Nava and several other agencies in Santa Barbara regarding HVI. Dkt. No. 478 at 33:13-15 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

83. Mr. Wise also attended a Santa Barbara County Board of Supervisors' meeting on January 15, 2008 regarding HVI. Dkt. No. 478 at 35:18-22 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

84. And Mr. Wise was aware at that time that California Assemblyman Pedro Nava had concerns over HVI. Dkt. No. 478 at 35:23-36:01 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise); TREX HVI035.

85. Mr. Wise admits that he attended a Santa Barbara County Board of Supervisors' meeting concerning HVI. Dkt. No. 478 at 39:12-16 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise); TREX HVI012.

86. Mr. Wise also admits that he had a meeting on February 26, 2008 with Senator Boxer and Congresswoman Caps' staff about the activities on various Greka sites. Dkt. No. 478 at 39:17-21 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise); TREX HVI012.

87. Mr. Wise admits to not caring for Mr. Grewal, the owner of HVI. Dkt. No. 478 at 43:23-44:01 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise). Mr. Wise admits to conducting internet research relating to Mr. Grewal and Green Dragon Gas, another company associated with Mr. Grewal. Dkt. No. 478 at 44:05-10 (10/22/2018 Trial Tr. Vol. II, Test. Of Wise).

D. HVI IS NOT LIABLE FOR GROSS NEGLIGENCE OR WILLFUL MISCONDUCT FOR ANY DISCHARGES

1. HVI Is And Has Been A Responsible Oil Operator

88. The systems in place at HVI's facilities (and which have been followed by HVI and its predecessors) were all originally designed, created, and operated by the major oil companies. Dkt. No. 427-4 (Grewal Decl.) at ¶ 9.

89. The SPCC plans, inherited from the previous operator (Dkt. No. 361-5 (Felt Decl.) at 8) were improved by, not only the improvements to the flowline maintenance program, but by other measures, such as better plans for containment of spills and better implementation of containment plans (Dkt. No. 361-5 (Felt Decl.) at ¶¶ 6-7).

90. HVI made strides in this area. Dkt. No. 361-5 (Felt Decl.) at ¶ 8. It employed an engineer tasked with upgrading the SPCC plans, mapping the active

pipelines and other aspects of the facilities, and updating the SPCC plans as new rules came out. Dkt. No. 361-5 (Felt Decl.) at ¶ 4.

91. SPCC plans are prepared by independent professional engineers. Dkt. No. 467 at 86:21-23 (10/23/18 Trial Tr. Vol. I, Test. of Reich).

92. These independent professional engineers are required to: (a) develop the plan; (b) visit the facility; (c) attest to their understanding of the regulation and how it would apply to the facility and good engineering practice; and (d) applicability of industry standard and good engineering judgment in the development of that plan. Dkt. No. 467 at 87:08-24 (10/23/18 Trial Tr. Vol. I, Test. of Reich). The independent professional engineers would employ their judgment and industry standards and good engineering practice to develop approaches for compliance with the SPCC regulations and certify those in the operator's plan. Dkt. No. 467 at 87:08-24 (10/23/18 Trial Tr. Vol. I, Test. of Reich).

2. Preventative Measures Taken By HVI

93. HVI had spent in excess of an estimated $50 million in operating, improving, and maintaining between December 2003 and January 2008. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 38. HVI also spent over $10 million upgrading its alarm systems that warn of equipment failure, overflows and other events that may lead to a spill. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 38.

94. HVI retained a consultant to strengthen several existing preventative measures and create new ones to address spills and HVI's alleged regulatory noncompliance. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 39. This group of measures was referred to as "Greka Green." Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 40.

95. These measures include: (a) strengthening HVI's surveillance of the facilities by creating a 24/7 coverage of all the oil fields to expand HVI's ability to prevent, control, and remedy any potential spills and to stop, control, contain, and

remedy actual spills; (b) increasing and reinforcing existing containment berms across the company's oil and gas facilities; (c) reinforcing regulatory compliance as HVI's number one priority, even over oil production; and (4) strengthening reporting requirements of contacting spills in excess of a barrel of oil to all agencies, including the California Department of Fish and Game, Fire Department, and Department of Building and Safety. Dkt. No. 427-2 (DeVegvar Decl.) at ¶¶ 42, 47, 50- 51.

96. In addition to the "Greka Green" program, HVI developed other measures, including: (a) evaluating permanently out-of-service equipment throughout the facilities to be slated for subsequent removal and scrapping, including equipment did not overlap with what was already required for regulatory compliance; and (b) developing a system wide infrastructure improvement plan to replace equipment that employees considered worn out with new equipment. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ ¶ 57-58.

III. HVI'S ALLEGED LIABILITY FOR OPA VIOLATIONS RELATING TO SPCC AND FRP REGULATIONS

A. MOST OF HVI'S FACILITIES ARE NOT REASONABLY EXPECTED TO DISCHARGE OIL IN HARMFUL QUANTITIES INTO NAVIGABLE WATERS OF THE UNITED STATES OR ADJOINING SHORELINES

97. OPA establishes procedures to prevent harmful discharges of oil into or upon navigable waters. Therefore, OPA's SPCC and FRP requirements only apply to facilities that, due to their location, could reasonably be expected to discharge oil in harmful quantities into or upon navigable waters. The OPA regulations *exclude* (and, thus, *do not* apply to): onshore and offshore facilities which, due to their location, could *not* reasonably be expected to discharge oil into or upon the navigable waters.

98. Determining whether a facility could *reasonably expect to discharge oil into or upon navigable waters* due to its location shall be based solely upon a

consideration of the geographical and location aspects of the facility (such as proximity to navigable waters or adjoining shorelines, land contour, draining, etc.) and must exclude consideration of manmade features such as dikes, equipment or other structures, which may serve to restrain, hinder, contain, or otherwise prevent a discharge.

99. To determine whether a facility could, because of its location, reasonably be expected to *cause substantial harm* to the environment *by discharging oil into or upon navigable waters*," a number of factors must be considered: the type of transfer operation; oil storage capacity; lack of secondary containment; proximity to fish, wildlife, and sensitive environments; proximity to drinking water intakes; spill history; and any other relevant site specific factors.

100. The United States only offers evidence of alleged discharges from the Bell and Zaca Facilities. Dkt. 472 (U.S. Proposed Facts), ¶¶12–13 (outlining the twelve oil spills at issue).

101. With respect to the **Bell and Zaca Facilities**, HVI contends that the discharges were not into or upon navigable waters of the United States. However, with the exception of the December 27, 2008 and the May 1, 2009 releases, this Court ruled against HVI on this issue in its Partial Summary Judgment Order. Dkt. 307.

102. The Court must determine if the **Lloyd, Los Flores, Security, U-Cal, Williams B, Lakeview, Battles, Casmalia, and Escolle Facilities** could reasonably be expected to discharge harmful quantities of oil into or upon navigable waters of the United States**.**

103. Dr. Lee's testimony does not provide a sufficient basis to find that for each of the nine HVI facilities other than Bell and Zaca it could reasonably be expected that a discharge of oil from those facilities would discharge oil into or

upon navigable waters of the United States. Dkt. No. 344-1 (Lee Decl.) at ¶¶ 34 – 36.

104. First, Dr. Lee did not consider any of the mandatory factors to make this determination: the type of transfer operation; oil storage capacity; lack of secondary containment; proximity to fish, wildlife, and sensitive environments; proximity to drinking water intakes; spill history; and any other relevant site specific factors. Dkt. No. 344-1 (Lee Decl.) at ¶¶ 34 – 36.

105. Second, Dr. Lee assumed (1) a discharge of oil equal to the total storage capacity of the facility; (2) saturated or near saturated soil conditions; (3) filled City of Santa Maria reservoirs; and (4) a single large storm event or a series of back-to-back storms. Dkt. No. 479 at 18:3 – 19:8 (10/23/18 Trial Tr. Vol. II, Test. of Lee); Dkt. No. 344-1 (Lee Decl.) at ¶ 36.

106. Dr. Lee does not know whether it is realistic or not that there would be a discharge of all the oil in a given facility in one evet. Dkt. No. 479 at 19:9 – 13 8 (10/23/18 Trial Tr. Vol. II, Test. of Lee).

107. Dr. Lee's testimony does not establish that it is reasonably foreseeable that there would be an actual discharge at one of the nine facilities under conditions that could reasonably be expected to occur.

1. Whether the Lloyd, Los Flores, Security, U-Cal, and Williams B Facilities Could Reasonably Be Expected to Discharge Harmful Quantities of Oil Into or Upon Navigable Waters of the United States.

108. As to the **Lloyd, Los Flores, Security, U-Cal, and Williams B Facilities**, the United States has not provided sufficient evidence to show that these Facilities could reasonably be expected to discharge harmful quantities of oil into or upon navigable waters of the United States.

109. HVI operates on leases in a dry desert area for most of the year, with the exception of the rainy season, when there are intermittent flows. Dkt. No. 361-3, (Josselyn Decl.) at ¶ 12, 5:23-26.

110. The **nearest TNW** to the Lloyd, Los Flores, Security, U-Cal, and Williams B Facilities is the **Santa Maria Estuary**. *See* Dkt. 361-3 (Josselyn Dec.), ¶15.

111. In proximity, the Santa Maria Estuary is over twenty (20) miles away from each of the above-mentioned Facilities. Specifically, the Santa Maria Estuary is: 25.5 miles from Lloyd; 26.8 miles from Los Flores; 25.8 miles from Security; 30.3 miles from U-Cal; 25.8 miles from Williams B. *See* Dkt. 361-3 (Josselyn Dec.), ¶15; HVI0102.

112. The Battles, Lakeview, Lloyd, Los Flores, Security, B161 Header, Williams B, and Bell facilities are located in the Santa Maria Watershed. TREX HVI0122; Dkt. No. 361-3, (Josselyn Decl.) at ¶15. Battles and Lakeview are isolated from any drainages. Dkt. No. 361-3, (Josselyn Decl.) at ¶¶ 16, 06:28-07:06, 64.

113. Water flow into the Santa Maria River from the Lloyd, Los Flores, Security, and U-Cal Facilities, through the nearest stream gauge, is very episodic and in some years, there is no recorded flow at all. Indeed, the Santa Maria River is "dry, on average, more than 90% of the time." *See* Dkt. 361-3 (Josselyn Dec.), ¶36. Therefore, the flow regime for the drainages nearest these Facilities does not experience continuous flow on a seasonable basis and, thus, the drainages do not qualify as a relatively permanent waterway. *See* Dkt. 361-3 (Josselyn Dec.), ¶41.

114. The Lloyd, Los Flores, and Security facilities are in the Bradley Canyon Creek Sub-watersheds and contain tributaries whose relevant reach ends at the Bradley Canyon Creek. *See* Dkt. 361-3 (Josselyn Dec.), ¶¶ 29, 36; TREX HVI0121.

115. The Lloyd, Los Flores, and Security facilities drain into Bradley Canyon Creek, which is not a relatively permanent waterway. Dkt. 361-3 (Josselyn Dec.), ¶ 37.

116. The Williams B facility is located 600 feet away from the nearest feature with an OHWM. Dkt. No. 361-3, (Josselyn Decl.) at ¶32, 12:8-15.

117. The nearest potential water feature to Williams B that could be considered navigable waters of the United States is Cat Canyon Creek. TREX HVI0121.

118. Cat Canyon Creek only flows during and after significant rainfall events. Dkt. No. 361-3, (Josselyn Decl.) at ¶ 81, 25:08-18.

119. Cat Canyon Creek is a rainfall drainage. Dkt. No. 361-3, (Josselyn Decl.) at ¶ 82, 25:19-26:03

120. During its handful of days of flow per year, Cat Canyon Tributary contributes 1% of the total water in the Santa Maria Estuary. Dkt. No. 469 13:16-20 (10/24/18 Trial Tr., Test. of Lee).

121. No wetlands are adjacent to Cat Canyon Creek. TREX HVI0127.

122. The relevant reach of Cat Canyon Creek ends at its junction with the Sisquoc River. TREX HVI0121.

123. Cat Canyon Creek is an "ephemeral" drainage. Dkt. No. 361-3, (Josselyn Decl.) at ¶79, 24:20-25:01.

124. Moreover, the Williams B Facility was never active and engaged in producing or storing oil. In addition, the tank battery at the Facility was demolished on February 25, 2010. *See* Dkt 361-2 (Dimitrijevic Dec.), ¶¶38–39; Dkt. 442 (Prop. Pretrial Conf. Order), Admitted Fact ¶5.ff–ii. No discharges from this Facility ever occurred.

125. Since HVI acquired the Lloyd Facility, it has been inactive, out-of-service, not opened, and devoid of any product given it is not an active oil production field. Dkt 361-2 (Dimitrijevic Dec.), ¶49. Indeed, the Government's inspection report noted that the tanks at the Facility only had "residual quantities of sludge."

126. Accordingly, the **Lloyd, Los Flores, Security, U-Cal, and Williams B Facilities** could not reasonably be expected to discharge harmful quantities of oil into or upon navigable waters of the United States.

2. Whether the Lakeview and Battles Could Reasonably Be Expected to Discharge Harmful Quantities of Oil Into or Upon Navigable Waters of the United States.

127. The United States also has not provided sufficient evidence to establish that either the **Lakeview or Battles Facilities** could reasonably be expected to discharge harmful quantities of oil into or upon navigable waters of the United States.

128. The Lakeview and Battles Facilities are isolated from any drainages or ditches by topographic barriers, in addition to berms and enclosures present at each Facility itself, such that flow off-site is not possible. Thus, these barriers prevent any oil, produced water, or other oil products from being discharged to downstream waters. *See* Dkt. 361-3 (Josselyn Dec.), ¶16; TREX HVI0104.

129. Specifically, the Battles Facility is completely contained within man-made barriers that preclude flows from the Facility to off-site. In addition, the Lakeview Facility is located within a topographic low at the top of a watershed divide and does not flow off-site. *See* Dkt. 361-3 (Josselyn Dec.), ¶64.

130. Moreover, the Lakeview Facility was never active and engaged in producing or storing oil. Since HVI acquired the Lakeview Facility, it has been inactive, out-of-service, not opened, and devoid of any product given it is not an active oil production field. *See* Dkt 361-2 (Dimitrijevic Dec.), ¶49. Indeed, the Government's inspection report noted that the tanks at the Facility only had "residual quantities of sludge." No discharges from this Facility ever occurred.

131. Accordingly, the **Lakeview and Battles Facilities** could not reasonably be expected to discharge harmful quantities of oil into or upon navigable waters of the United States.

3. Whether the Casmalia and Escolle Facilities Could Reasonably Be Expected to Discharge Harmful Quantities of Oil Into or Upon Navigable Waters of the United States.

132. The Casmalia and Escolle Facilities are located in the Shuman Canyon Watershed, which does not have any designated navigable water within it. *See* Dkt. 361-3 (Josselyn Dec.), ¶13. For these Facilities, the nearest TNW is the Pacific Ocean, which is (i) 6.7 miles away from Casmalia and 9.4 miles away from Escolle, and (ii) separated by a large sandbar complex from drainage within Shuman Canyon. *See* Dkt. 361-3 (Josselyn Dec.), ¶¶13, 17.

133. In addition, neither of these Facilities drains into a relatively permanent waterway and there is no evidence of regular flow or continuous seasonal flow from the closest water feature. *See* Dkt. 361-3 (Josselyn Dec.), ¶31.

134. Accordingly, the **Casmalia and Escolle Facilities** could not reasonably be expected to discharge harmful quantities of oil into or upon navigable waters of the United States.

135. Importantly, in relationship to the size of the watershed that drains from each of the Lloyd, Los Flores, Security, U-Cal, Williams B, Lakeview, Battles, Casmalia, and Escolle Facilities, compared to that of the closest navigable waterway, represent less than one percent (1%) in all cases, and generally less than 0.4%, of the total watershed. In addition, on average, the frequency of flow is less than one percent (1%) of the year. Therefore, for most of the year, the drainages nearest the Facilities are dry and exhibit no flow. When the waterways flow following storm events, it is a negligible volume of the flows contributed by the watershed to the TNW. *See* Dkt. 361-3 (Josselyn Dec.), ¶¶66–71.

136. Accordingly, because HVI's **Lloyd, Los Flores, Security, U-Cal, Williams B, Lakeview, Battles, Casmalia, and Escolle Facilities** are far from TNWs and contribute a negligible volume of flow to those TNW, and given the nature of their operations, these facilities are not subject to the Oil Pollution Prevention regulations set forth at 40 C.F.R. Part 112.

137. Accordingly, no OPA penalties will be imposed on HVI in connection with any of these Facilities.

B. ALLEGED SPCC VIOLATIONS

138. The United States claims that $68,702,500 of the civil penalties, out of the maximum civil penalty it calculates of $70,308,692 for alleged SPCC violations are due to the supposed failure to develop and implement a program of flowline maintenance. This amounts to about ninety-eight percent (98%) of the penalties attributed to the alleged SPCC plan violations. *See* Dkt. 475 (Plaintiffs' Post-Trial Brief), at Attachments C–D, pg. 11.

139. As described further below, the evidence does not show that there was a regulatory violation by HVI due to the purported lack of a program for flowline maintenance. There was a flowline maintenance program developed and implemented by HVI.

140. The remaining alleged violations of SPCC requirements by HVI are not extensive or serious and many were merely technical in nature. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 34.

1. HVI Had Implemented and Developed a Flowline Maintenance Program At All Relevant Times.

141. HVI has always had a flowline maintenance program. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 62. While not always in the written format currently stated in the SPCC regulations, HVI had procedures, practices, and plans for properly maintaining its pipelines from the start. Dkt. No. 361-5 (Felt Decl.) at ¶ 12.

142. Plaintiffs mistakenly focus on the official or technical existence of a written flowline maintenance program through SPCC Inspection Reports (Dkt. No. 424 (United States' Post Trial Proposed Findings of Fact) at ¶ 168) rather than on the HVI employees' actual practice of maintaining and inspecting their flowlines or pipelines.

143. Prior to 2011, there was no regulatory framework setting forth details of flowline maintenance and inspection programs (Dkt. No. 479 at 44:20-45:23 (10/23/18 Trial. Tr. Vol. II, Test. of Kinworthy)), so HVI developed and implemented its own (Dkt. No. 361-5 (Felt Decl.) at ¶ 12).

144. Plaintiffs' expert, Kinworthy, supports this conclusion in testifying that no federal or state law or regulation in place at the time supports his finding of deficiencies relating to (1) a written flowline maintenance plan and (2) marking each pipeline to indicate fluids carried and direction of flow. Dkt. No. 479 at 40:2-24 (10/23/18 Trial. Tr. Vol. II, Test. of Kinworthy).

145. Several SPCC Plans for certain facilities clearly indicate that they maintained a flowline maintenance program. *See e.g.,* TREX US2829 (2008 Casmalia Facility SPCC Plan) ("A flow line maintenance program is in place that includes monthly visual inspections and pipe line repair/replacement as needed."); TREXUS2839 (2005 Zaca Facility SPCC Plan)("Yes" check marked as to whether "a regular program of flowline maintenance exist for each oil flowline to reduce the likelihood of discharge.")

146. HVI employees understood a regular program of flowline management to mean or refer to a visual inspection by field operators 24 hours a day, 7 days a week, and if needed, pressure inspections. Dkt. No. 400-10 (Marroquin Dep. Vol. I) at 71:12-74:3 (Q: "Are you familiar with the term flowline maintenance?" . . . Q: "What does that refer to?" A: "Visual inspection by the operator, and they are there are there 24 hours a day, seven days a week. And if needed, pressure inspection.").

147. Plaintiffs rely on testimony from HVI's field operators that either lacked knowledge or recollection as to the existence of a flowline management program at HVI. Dkt. No. 424 (United States' Post Trial Proposed Findings of Fact) at ¶ 168. Lack of knowledge of recollection regarding the existence of a flowline maintenance program on the part of some employees does not equate to

HVI never having had a flowline maintenance program until 2010, especially in light of testimony by other HVI employees regarding the program's existence.

148. Several HVI employees and SPCC Plans have corroborated the existence of such a program or pipeline maps. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 62 ("As far as I can recall, HVI has always had a flowline management system or plan."); Dkt. No. 361-5 (Felt Decl.) at ¶ 12 ("One alleged deficiency was that HVI-C had no regular program of flowline maintenance program, when in fact it did."); Dkt. No. 400-10 (Marroquin Dep. Vol. I) at 71:19-71:23 (Q: "Do know you whether Greka had, during your time at the Bell Facility, a regular program of flowline maintenance?" A: "We have always had it. We have always had operators out there."); TREX US2829 (2008 Casmalia Facility SPCC Plan); TREX US2839 (2005 Zaca Facility SPCC Plan).

149. In 2010, HVI completed formalizing its flowline maintenance program into a comprehensive and written Pipeline Management Plan for its facilities. TREX US2762.

150. HVI's Pipeline Management Plan sufficiently incorporated information relating to pipelines in each of its facilities consistent with the applicable regulations. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 67.

151. HVI properly assesses pipelines in each of its facilities, consistent with the applicable regulations. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 63; Dkt. No. 427-4 (Grewal Decl.) at ¶ 60.

152. Testimony of the Plaintiffs' expert, Kinworthy, supports the proposition that HVI assessed all flow lines including a detailed inspect of the flow line to determine its condition, size, length, and location. Dkt. No. 479 at 33:11-15 (10/23/18 Trial. Tr. Vol. II, Test. of Kinworthy).

2. All Active Pipelines are Mapped.

153. All of HVI's active pipelines are mapped. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 65.

154. Regarding HVI's active pipelines, plaintiffs' expert, Michael Kinworthy, himself testified that: (a) the marking of active flow lines for future inspections is not required by federal or state law (TREXUS3213[Appendix C to Kinworthy Report]; (b) the identification of idle flowlines is not based upon federal or state law or regulation (Dkt. No. 479 at 39:21-24 (10/23/18 Trial Tr. Vol. II, Test. of Kinworthy); and (c) the assessment of all idle and inactive flowlines at all the Santa Maria operations is not based upon any federal or state law or regulation. Dkt. No. 479 at 39:3-7 (10/23/18 Trial Tr. Vol. II, Test. of Kinworthy).

3. HVI Adequately Conducted Visual Inspection By Foot or Vehicle.

155. Ninety-five (95%) percent of active lines are above-ground lines, facilitating visual inspection. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 65.[2]

156. Field operators perform a weekly visual inspection and informal daily examinations and at times, multiple times a day, of all the above ground lines for pipe integrity. E.g., Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 69; Dkt. No. 400-2 (Allen Dep.) at 85:22-86:04 (Q: "So there were no preventative inspections being conducted on sections of the pipelines?" A: "As I said earlier, there were visual inspections by the pumpers and myself, at times, for the integrity of the pipelines. We were looking for leaks and broken equipment."); Dkt. No. 401-1 (Dahlgren Dep. Vol. I) at 150:2-4 (Q: "Okay. And were those checked daily? Were pipelines

[2] At trial, Mr. Dimitrijevic testified that around 75 percent of HVI's pipelines are visible. Dkt. No. 469 77:02-09 (10/24/18 Trial Tr., Test. of Dimitrijevic). Other evidence supports Mr. Dimitrijevic's higher percentage of visibility regarding above the ground pipelines. See Dkt. No. 400-10 (Marroquin Dep. Vol. I) at 71:12-74:3 (A: "They ride along where the line are at 99.9 percent of the lines are next to eh road, so they can – they pass by and just looking at them. You will see them out there the truck running all day long."); Dkt. No. 400-11 (Munoz Dep. Vol. I) at 189:1-190:23 (A: "I would say 95 percent of the lines were along, you know, your route every day, your run, if you will.").

checked daily or only if they were -" A: "It was part of the facility inspection, yes."); Dkt. No. 400-11 (Munoz Dep. Vol. I) at 189:07-189:10 ("I would say 95 percent of the lines were along, you know, your route every day, your run, if you will. And, you know, you just did a visual.").

157. By way of example, the SPCC Plan for the Casmalia facility requires field operators to check **daily** above ground piping, values, and wellheads with detailed written inspections performed monthly. TREX US2829 (2008 Casmalias Facility SPCC Plan).

158. This is evidenced by the submission of Daily Production Reports and Weekly Lease Inspection Reports. E.g., TREX US1318 (Daily Production Report for July 2007 at Bell Facility).

159. The Daily Production/Inspection Reports contain recorded readings of pressure, tank levels or volumes, injection rate, and fuel compression of visited well sites at every active facility that would signal to the operator issues with concerning the associated pipelines. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 61; Dkt. No. 400-11 (Munoz Dep. Vol. I) at 207:2-208:16 (Q: "The first is the Bell Tank Battery area. Was that inspected daily?" A: "Daily." Q: "And the Bell pit area, or Pit Number 1?" A: "Daily." Q: "Emergency Pit 1? A: "Daily." Q: And then the Blochman injection area?" A: "Daily." Q: "Daily? And I believe we have already confirmed well heads were inspected daily." A: "Yes." Q: "And how about pressure gauges?" A: "Daily.").

160. These daily reports require field operators to specifically inspect flowlines at their facility. *See e.g.,* TREX US2968 (2005 Battles Facility SPCC Plan) at HVI027765 (Inquiring: "Are roads, ditches, and terrain clear of oil flowline leakage?" "Have the pipelines and valves been inspected for signs of leakage?") and HVI027757 ("Pumpers regularly inspect drainage courses, roads, ditches, oil

traps, sumps, and ponds for oil as evidence of flowline leaks and lodge the results of their inspection on the daily report.")

161. Field operators are required to patrol the facility daily, checking for conditions potentially leading to leaks or spills as listed in the Weekly Lease Inspection form. TREX US2941 (2011 Battles Facility SPCC Plan) at TREX HVI001095.

162. These operators inspect the wells, well location, engines, units, chemicals, facilities, tanks, boilers, gates, H2S Readings, Power poles, and other miscellaneous items. *See* TREX US2941 (2011 Battles Facility SPCC Plan) at HVI001107.

163. As part of this process, operators are required to note any pipeline issues and daily pipeline pressure increases. *See* TREX US2941 (2011 Battles Facility SPCC Plan) at HVI001106.

164. Each Weekly Lease Inspection requires the operator to answer at least one hundred and three (103) separate and substantive questions regarding their inspection. TREX US2941 (2011 Battles Facility SPCC Plan) at HVI001105-HVI001106. These Weekly Lease Inspections are signed by both the field operator and supervisor. *Id.*

165. HVI's SPCC plans require all inspection records to be kept for at least 3 years. *E.g.,* TREX US2968 (2005 Battles Facility SPCC Plan); TREXUS2839 (2005 Zaca Facility SPCC Plan); TREX US2828 (2008 Casmalia Facility SPCC Plan); TREXUS2831 (2008 Los Flores SPCC Plan); TREX US2832 (2008 U-Cal SPCC Plan).

166. Field operators conduct their visual inspections either by foot or vehicle, depending on the terrain. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 69.

167. Field operators would visually inspect the pipelines for any deterioration, oil leaks, corrosion, pitting, and dead spots. Dkt. No. 400-11 (Munoz

Dep. Vol. I) at 190:12-23 (Q: "And what were you looking for?" A: "Any type of pitting, any type of wet marks around the line . . . Q: "And you said pitting. What do you mean by pitting?" A: "Just like a car, you know, metal outdoors, it's going to pit . . . any type of exterior wear on the pipe, rust, . . .[a]ny kind of deterioration."); Dkt. No. 400-13 (Scott Proskow Dep. Vol. I) at 32:20-24 ("What my job and my subordinates below me which we would do is we would – that was part of our routine, is we would drive the lines, walk the lines, and just look for damage, corrosion, you know, any types of problems.").

168. Most of the flow lines are next to the road, which facilitates visual inspection. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 70; Dkt. No. 400-11 (Munoz Dep. Vol. I) at 189:14-18 (Q: "And when you talk about your route, you're talking about the roadways that connect one well location to another; you're driving along, there's a pipeline running within visual range of your truck, and you keep an eye out to see if there's any leaks?" A: "Correct."); Dkt. No. 400-13 (Scott Proskow Dep. Vol. I) at 142:10-13 ("[T]he company who had built the facility, actually, lined them out—for the most part, not all, but for the most part along the roadways so you can, actually, visibly see.")

169. These roads are not highways, but lightly travelled roads in the country, enabling operators to drive by as slow as 5 miles per hour. Dkt No. 400-13 (Scott Proskow Dep. Vol. I) at 143:01-04 ("[I]t was part of the route. I would say 70 to 80 percent of the flow lines and gathering lines were on the roadways, so you're looking at them while you're driving past. It's not a highway. You're going 5 miles pes hour.")

170. Plaintiffs' expert, Michael Kinworthy, admits there is no federal or state law that requires an operator to inspect all active flowlines monthly by walking the lines. Dkt. No. 479 at 39:08-11 (10/23/18 Trial Tr. Vol. II, Test. of Kinwothy).

171. Furthermore, walking all the pipelines on a monthly basis is impractical given both the sheer length of some of these pipelines and the terrain of Santa Maria Valley. Dkt. No. 469 at 77:10-17 (10/24/18 Trial Tr., Test of Dimitrijevic) (Q: "[I]s it practical to walk all of those pipelines on a monthly basis in your view?" A: "It is not." Q: "Why?" A: "Because of the – of the area – of the coverage on would have to tackle downhill sides, up, you know, hillsides through ravines, through brush and trees; it's just no – it's not feasible to do."); Dkt. No. 400-10 (Marroquin Dep. Vol. I) at 72:25-73:03 ("You can't babysit a line – you have got to remember that there is hundreds and hundreds and hundreds of miles of line out there. You have got many, many, wells. You have got lines all over the place.").

172. Even so, field operators would also walk sections of the pipelines where they felt particular concern or there was no road access. Dkt. No. 400-11 (Munoz Dep. Vol. I) at 189:23-25 ("I mean there would sections that if you felt concern or you hadn't gone out in a while and checked them out, you would walk them.").

173. In fact, some field operators walked to inspect the pipelines a couple times a month at their facility. Dkt. No. 400-11 (Munoz Dep. Vol. I) at 190:06-09 (Q: "And how often would you say you would get out and walk them." A: "I did it a couple times a month, as operator and as a supervisor.").

174. Other field operators would conduct a walking inspection of flow lines with limited or no road access not less than once a quarter. Dkt No. 400-13 (Scott Proskow Dep. Vol. I) at 142:14-17 ("And every once in a while we would get out and walk the lines, especially into areas where there was no road access . . . it was done at least once a quarter, at least.").

175. They would look for any type of problem, including identifying corrosion in the flow lines. Dkt. No. 401-3 (Sherrie Proskow Dep. Vol. I) at 136:2-

14 (Q: "Do you know if the flow line inspection involved efforts to identify corrosions in the flow lines?" . . . A: "[T]hey would look for any type of problem. When I would walk then, I'd look for anything.").

4. HVI Performs Pressure Testing On Its Active Flowlines.

176. HVI is compliant with respect to integrity testing of flow lines. Dkt. No. 479 at 33:23-34:17 (10/23/18 Trial Tr. Vol. II, Test. of Kinworthy).

177. Plaintiffs' expert, Kinworthy, also has acknowledged that HVI has been in compliance with DOGGR requirements for periodic pressure testing from 2010 to 2012 and has no evidence of any non-compliance since then. Dkt. No. 479 at 37:14-20 (10/23/18 Trial Tr. Vol. II, Test. of Kinworthy).

178. HVI pressure tests all active flowlines on a regular basis every 5 years (using a third party service) as currently recommended by DOGGR. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 77.

179. In fact, HVI field operators monitor the pressure gauges of pipelines on a daily basis throughout the field. Dkt. No. 400-10 (Marroquin Dep. Vol. I) at 72:12-17 (Q: "And how is the pressure monitored?" A: "They have gauges at the well and gauges along the line and at the end of the line. They monitor pressure gauges . . . And they fill a sheet on a daily basis."); Dkt. No. 400-11 (Munoz Dep. Vol. I) at 207:15-24 (Q: "And how about pressure gauges?" A: "Daily." Q: "And where were those pressure gauges located?" A: "Throughout the field, At least two gauges on each well, one for flowline, one for gas, one for casing backside pressure. And throughout pipelines, family lines, sometimes even flow lines, individual well flow lines that –they were everywhere. Headers, gas separator, test vessels or weigh meters rather, they were everywhere.").

180. The full universe of pressure gauges was inspected on a daily basis. Dkt. No. 400-11 (Munoz Dep. Vol. I) at 207:25-208:2 (Q: "And how often was that full universe of pressure gauges inspected?" A: "Daily.").

181. HVI conducts hydrostatic testing either in-house or by a third-party contractor on (a) pipelines in environmentally sensitive areas every 2 years; (b) on lines that are reused after being out-of-service for long period of time; (c) or after a release and repair of that section of the line, as required under State and County regulations. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 78.

182. In particular, an HVI employee or third-party representative pressures up the system to one-and-a-half (1.5) times the working pressure and holds or maintains the pressure with no leak-off, places the pressure result on a chart, and makes sure that there's no leak-off for about four to eight hours. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 79.

183. After HVI completes hydrostatic testing, it has the proper agency, the Petroleum Department, the Division of Oil, Gas, and Geothermal Resources, or a certified third-party company sign-off evidencing the company's regulatory compliance. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 80.

184. In fact, HVI has conducted hydrostatic testing in circumstances when it was not required under State and County regulations. For example, when HVI encounters a section of the line that's questionable and then is replaced, HVI performs an in-house test and maintains it for the company's records. This is performed even without a release having occurred. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 81; Dkt No. 401-1 (Dahlgren Dep. Vol. I) at 108:05-09 ("[W]hen a well was shut down for repairs, before they turn the well back on, they would pressure test the line up to 150 percent of its normal operating pressure. And if it failed, then we would go in and repair it.").

185. HVI also has very few pipelines near any EPA designated Environmentally Sensitive Areas and part of HVI's pipeline maintenance procedures involves re-routing pipelines away from drainage creeks, reducing the diameter of the pipes and, where possible, utilizing pipelines made of materials

other than steel, such as composites, to eliminate corrosion possibilities altogether. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 68.

186. Plaintiffs' expert, Michael Kinworthy, testified that his recommendation for pressure testing every two years (in environmentally sensitive areas) was not required by any federal or state law or regulation in place at the time of the alleged deficiency. Dkt. No. 479 at 60:15-61:02 (10/23/18 Trial Tr. Vol. II, Test. of Kinworthy). Accordingly, he admits the cost of doing such testing that he includes as his recommendation does not reflect a cost that HVI avoided by failing to comply with the law. Dkt. No. 479 at 44:07-45:23 (10/23/18 Trial Tr. Vol. II, Test. of Kinworthy).

187. Mr. Kinworthy also testified that his recommendation for pressure testing every five years (in non-environmentally sensitive areas) was not required by any federal or state law or regulation in place at the time of the alleged deficiency. Dkt. No. 479 at 60:15-61:02 (10/23/18 Trial Tr. Vol. II, Test. of Kinworthy).

188. HVI's corrosion monitoring coupons or probes that monitor steel or wall loss from corrosion is considered a "nondestructive testing using ultrasonic or other techniques approved by DOGGR to determine wall thickness of flow line." Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 76.

189. Plaintiffs' expert, Michael Kinworthy, acknowledged that he is not aware of any evidence that HVI failed to pressure test any flowline following a spill event. Dkt. No. 479 at 37:10-13 (10/23/18 Trial Tr. Vol. II, Test. of Kinworthy).

190. Even if this Court had found that there were SPCC violations based on the failure to develop and implement a flowline maintenance program at each of the eleven facilities at issue, the maximum penalty should be imposed on a yearly basis. For each of the three years in which the alleged violations carried a $32,500 penalty, the penalty would be $357,500, and thus the penalty of for first three years

would be $1,072,500. The penalty for each of the next two years for the facilities at issue would be $412,500, and thus the penalty for the next two years would be $825,000. The total penalty that would be applicable if this Court had found SPCC plan violations based on the failure to develop and implement a flowline maintenance program would be $1,897,500.

5. Pressure Maintenance for Limited and "Buried" Production Pipelines Are Also Conducted.

191. Most of HVI's pipelines are above-ground; only 5 percent of the production pipelines are underground or buried. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 66; Dkt. No. 400-11 (Munoz Dep. Vol. I) at 195:25-196:08 (Q: "What percentage of pipelines at the Bell facility are buried?" A: "I would say 5 percent. I'm talking overall pipeline. I'm tlking production lines, fuel lines, gas gathering lines, water lines. I mean it's very little. . . I mean for the most part, it's all above ground.").

192. HVI has a good understanding of these underground pipelines, because they generally do not remain buried for long periods of time. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 66. Moreover, they also are likely buried just underneath a roadway for relatively short distances. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 66; Dkt. No. 400-11 (Munoz Dep. Vol. I) at 196:07-08 ("It's road crossing and such. I mean for the most part, it's all above ground.")

193. Due to the nature of buried pipelines, HVI employees could not *visually* inspect them, but instead maintain the pressure, manage the pressure, and continue to monitor the area. Dkt. No. 400-11 (Munoz Dep. Vol. I) at 195:16-20 (Q: "And did those operators ever inspect buried pipelines?" A: "No, they couldn't inspect it. What you do with the buried pipelines is maintain the pressure, manage the pressure, and keep an eye on them.").

6. HVI's "Aggressive" and "Proactive" Nature Regarding Pipeline Replacement.

194. Starting as early as 1999, HVI maintained an on-going policy to replace sections of pipelines and the entire pipeline up to the header system. Dkt No. 401-1 (Dahlgren Dep. Vol. I) at 93:04-15 (A: "Greka had a policy of replacing sometimes the entire line up to the header system or just a section of a line." Q: "And when you talk about then replacing the entire line, are there any specific facilities that you can think of that had their lines replaced?" A: "No. It was an ongoing project from the day I started working for the company." . . . Q: "And when you say from the day you started working for the company, do you mean from 1999?" A: "Yeah.").

195. HVI was very aggressive in replacing pipelines, investing money to ensure that all the lines were adequate. Dkt No. 401-1 (Dahlgren Dep. Vol. I) at 93:11-21 (A: "They spared no money on making sure all the lines were okay . . . I know they were very aggressive in placing the lines." Q: "Were they still aggressively replacing the lines when you left Greka?" A: "Yes.").

196. They "always went to the next step and always made sure that they replaced the line, even if it's just a section." Dkt No. 401-1 (Dahlgren Dep. Vol. I) at 95:24-96:01.

197. After February 2006, HVI had a construction crew and retained contractors who worked solely with the company to update and repair pipelines. Dkt No. 401-1 (Dahlgren Dep. Vol. I) at 93:22-94:02 (Q: "Was there any foreseeable time frame for when that effort would end?" A: "No. No, they had a large construction crew and contractors that came in and worked with them to do nothing but update, repair lines, make sure everything was working properly.").

198. A pipeline was never patched more than once in the same spot as HVI did not believe in utilizing patches any more than absolutely necessary. Dkt No. 401-1 (Dahlgren Dep. Vol. I) at 98:21-02 (Q: "Was there any – could a line be

patched more than once in the same spot?" A: "Oh, yeah – not in the same spot . . . [W]e did absolutely did not believe in utilizing patches any more than we absolutely had to.").

199. In addition to its on-going policy, HVI was aggressive in replacing pipelines where the operators found a section to be fragile during their testing or visual inspection process and after experiencing any leakage. Dkt No. 401-1 (Dahlgren Dep. Vol. I) at 97:13-21 (Q: "What are the other instances when you would replace a segment?" A: "We would place it –No. 1, we would replace it if the field operator in the field considered the pipeline very fragile. We would go in there and we would replace it. At the same time, we had a program where we were replacing sections of line that looked like they were going bad. And we were very aggressive in maintaining all the pipelines in the field.").

200. When a section of a pipeline was replaced for any given reason, HVI would also note and schedule for the whole line to be eventually replaced. Dkt. No. 401-1 (Dahlgren Dep. Vol. I) at 98:13-17 ("So as first come, first serve. If it leaked, it gets addressed first. And if we replaced a section of line and we knew that maybe the whole line needed to be replaced then we would put it on our schedule, and as soon as we could get to it[.]").

201. No federal law or state law requires oil and gas operators to place all replaced segments on supports or racks and such requirement is inconsistent with DOGGR, which only recommends it for newly installed facilities. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 73. Plaintiffs' expert, Kinworthy, admits that no law or regulation in place at the time supports his recommendation that all pipeline segments that are replaced be placed on supports or racks.

202. In a similar vein, plaintiffs' expert, Kinworthy admits that there was no federal or state law or regulation in place at the time to support his finding of

deficiency relating to conducting flowline elevation surveys. Dkt. No. 479 at 53:09-12 (10/23/18 Trial Tr. Vol. II, Test. of Kinworthy); TREX US3213**.**

203. Nor is Mr. Kinworthy aware of any evidence to show that HVI did not conduct a flowline elevation survey. Dkt. No. 479 at 33:16-22. (10/23/18 Trial Tr. Vol. II, Test. of Kinworthy).

7. HVI Evaluated the Corrosivity of Its Pipelines.

204. Traces of corrosion are apparent outside or inside a pipeline. Dkt. No. 400-10 (Marroquin Dep. Vol. I) at 98:16-18 ("Usually you see traces of corrosion from outside or the inside. You could tell right away.").

205. Whenever operators had to cut open a pipeline, they would also inspect the inside of the pipeline to evaluate the degree of corrosivity, and if it was determined to be a high risk of failure, HVI would replace the line. Dkt. No. 401-1 (Dahlgren Dep. Vol. I) at 95:18-96:05 ("And during the course of looking inside the pipe after you cut it open, we'd look to see how corroded it was. If it was more, we would continue to cut the line and pull it and replace line. So we were very aggressive in that respect.").

206. Though there was no federal or state law or regulation in place at the time to support Kinworthy's finding of deficiency relating to a continuous application of corrosive inhibitors, HVI monitors the corrosivity of fluids and applies a continuous injection of corrosion inhibitor chemicals. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶¶ 74-76.

207. As Mr. Kinworthy indicates, there are many methods for prevention of corrosion. Dkt. No. 479 at 4702:-48:19. (10/23/18 Trial Tr. Vol. II, Test. of Kinworthy).

208. Once it was determined that certain of the releases in 2008 from the Bell facility contained corrosive fluids, HVI had chemical companies evaluate

which areas had corrosive characteristics and commenced treatment in those areas. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 74.

209. Wherever a potential corrosive situation existed, the injection would be applied in a specific area of the system, the flowline system, or down a well, which would treat all the returning fluid. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 75.

210. HVI also performs corrosion monitoring coupons or probes that monitor steel or wall loss from corrosion and treats any steel or wall loss greater than what is acceptable to the American Petroleum Institute (API) and recommended by chemical companies that evaluate HVI’s product. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 76.

211. Despite HVI’s best efforts, new lines can at times develop leaks due to corrosion. Dkt. No. 400-10 (Marroquin Dep. Vol. I) at 95:25-96:05 (Q: “The paragraph further states that you stated a 10-inch pipe had developed a leak due to corrosion and had been in service for less than a year. Is that true?” A: “Yeah. This was a fairly new line that was installed a year before that and I did myself.”).

C. OTHER SPCC VIOLATIONS

212. HVI operates thirteen oil and gas facilities in the Santa Maria Valley. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 64.

213. HVI has SPCC plans for all of its HVI facilities. Dkt. No. 467 at 86:19-20 (10/23/18 Trial Tr. Vol. I, Test. of Reich).

1. SPCC Compliant Plans

214. As Plaintiffs' expert, Kinworthy, admits, the current SPCC plans for the HVI facilities are legally compliant. Dkt. No. 479 at 37:21-23 (10/23/18 Trial Tr. Vol. II, Test. of Kinworthy). Moreover,

a. By June 29, 2007, HVI had SPCC plans in compliance with applicable regulations for the **Lakeview lease**. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 42; Dkt. No. 442 (Final Pretrial Order) at sss.

b. By January 28, 2011, HVI had SPCC plans in compliance with applicable regulations for the **Security lease** and **Lloyd lease**. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 42; Dkt. No. 442 (Final Pretrial Order) at ttt.

c. By April 7, 2011, HVI had SPCC plans in compliance with applicable regulations for the **Casmilia lease**, **Zaca** (Chamberlain and Davis) **lease**, and **Escolle lease**. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 42; Dkt. No. 442 (Final Pretrial Order) at uuu.

d. By April 8, 2011, HVI had SPCC plans in compliance with applicable regulations for the **Los Flores lease**.

e. By May 5, 2011, HVI had SPCC plans in compliance with applicable regulations for the **Battles lease**. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 42; Dkt. No. 442 (Final Pretrial Order) at www.

f. By January 1, 2009, HVI had SPCC plans in compliance with applicable regulations for the **U-Cal lease**. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 43; Dkt. No. 442 (Final Pretrial Order) at ii.

g. HVI was no longer in the possession or control of the **Williams B** facility as of February 25, 2010. Dkt. No. 442 (Final Pretrial Order) at ii.

2. Other SPCC Alleged Violations

215. A review of the records regarding spills at the HVI facilities and the complaints of SPCC violations demonstrate that many of these alleged violations are for technical violations, with the alleged violations resulting in no spills or damage to waters or the environment. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 34.

216. Certain of the facilities for which SPCC violations are claimed (such as Lakeview and Williams B) experienced no spills both before and after the alleged SPCC violations were remedied. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 34.

217. Plaintiffs allege that only two facilities did not have SPPC plans in place, the Lakeview and Williams B. facilities. Dkt. No. 424 (United States' Post Trial Proposed Findings of Fact) at ¶¶ 190-192.

218. It is important to note that (1) the Williams B facility was never a producing facility when HVI had possession or control of the lease (Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 39); and (2) the Lakeview facility (a) has not been producing since HVI's acquisition of the Vintage Petroleum leases (Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 38) and (b) was acquired by HVI about a month before the facility's inspection date (TREX (US2822 (2007 Lakeview SPCC Inspection Report) at EPA9_0008484).

219. The tank battery at the Williams B Facility was demolished on February 25, 2010, mooting any issue of SPCC compliance. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 38.

220. Other facilities, such as Battles, Casmalia, Escolle, Lloyd, and Security experienced no spills outside containment or, if they had any, they were minimal and occurred after the alleged SPCC violations had been remedied. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 34.

221. The Lloyd facility has not been producing since HVI's acquisition of the Vintage Petroleum leases. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 38.

222. HVI vacated the U-Cal facility on December 31, 2008. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 38.

3. Containment and Drainage Controls

223. Plaintiffs alleged that HVI failed to provide and maintain adequate containment and drainage and identified 18 instances of this claimed violation

under 40 C.F.R. § 112.7(c), 112.7(h)(1), and 112.9(c)(2)(2003) and 112.7(c), 112.7(e)(4), and 112.7(e)(5)(1998). *See* Dkt. No. 424 (United States' Post Trial Proposed Findings of Fact) at ¶¶ 178-189.

224. Four of those purported violations occurred at the following facilities: (1) the Lakeview lease; (2) Lloyd Lease; and (3) the William B. Dkt. No. 424 (United States' Post Trial Proposed Findings of Fact) at ¶¶ 178.

225. None of those three facilities produce any oil. *See* Dkt 361-2 (Dimitrijevic Decl.), ¶¶38–39, and 49. Therefore, containment and drainage controls for a discharge or release are unnecessary.

226. The Lakeview Lease was acquired by HVI about a month prior to the EPA's inspection of the facility and reported violations. TREX US2822 (2007 Lakeview SPCC Inspection Report) at EPA9_0008484. Thus, even if the Lakeview facility produced oil, HVI had little time to address containment and drainage concerns before the inspection.

4. Accumulation of Discharged Oil

227. Plaintiffs alleged that HVI failed to inspect for and promptly remove accumulations of discharged oil and identified fifteen instances of this claimed violation under 40 C.F.R. § 112.9(b)(1) and (2)(2003) and 112.7(e)(5)(ii)(1998). *See* Dkt. No. 424 (United States' Post Trial Proposed Findings of Fact) at ¶¶ 206-215.

228. Certain circumstances surrounding the accumulation of discharged oil should be considered in evaluating the alleged violations.

229. First, the inspection on February 12, 2008 at the Security facility and following cited violation occurred when the facility was shut down by the Santa Barbara Fire Department, preventing field operators from removing the accumulated oil referenced in the SPCC inspection report. *See* TREX US2946 (2008 Security Facility SPCC Inspection Report) at EPA9_0008611 ("At the time

of this inspection, the Security lease was not operating and had been shut in by Santa Barbara County Fire.")

230. Second, many of the violations occurred near or on the same day HVI experienced a discharge or release at the particular facility and some of which were exacerbated by severe rain conditions, including the El Nino that occurred in 2008. *See* e.g., TREX US 2952 (2005 Battles Facility SPCC Inspection Report) at EPA9_0008525 ("The inspection was conducted as a result of referral from the Santa Bara County Fire Department, following . . . oil spills. The inspection was also conducted following massive rain storms that hit the Southern California area in early January, 2005"); TREX US2953 (2006 Battles Facility SPCC Inspection Report) at EPA9_0008476 (inspection initiated after a reported OES spill just two days prior); TREX US2954 (2005 Bell Facility SPCC Inspection Report), at EPA9_0008531 ("The inspection was conducted as a result of referral from the Santa Bara County Fire Department, following . . . oil spills. The inspection was also conducted following massive rain storms that hit the Southern California area in early January, 2005"); TREX US1175 (2007 and 2008 Bell Facility SPCC Inspection), at EPA9_0008562 ("This inspection was during a significant rain event and the spill was in the clean up phrase."); TREX 2956 (2008 U-Cal Facility SPCC Inspection) at EPA9_0008636 (referenced heavy rains in the area during February 12, 2008 inspection with no impact to navigable waters impacted from discharge followed by a spill a day prior to the March 21, 2008 inspection); TREX0873 (2005 Zaca Facility SPCC Inspection Report) at EPA9_0008522 ("Accumulated oil was observed pooled around a pump within the Davis Tank Battery containment unit and the associated knockout tank containment united related to the 12/07/05 spill event" just two days prior to the inspection); and TREX US0560 (2008 Zaca SPCC Inspection Report) at EPA9_0008675 (cited oil accumulated near the Davis Tank

Battery the same day the Zaca facility experienced a release purportedly caused by the same Davis Tank Battery).

231. Third, other than the reports for the Zaca and U-Cal Facility inspections, the SPCC reports for the remaining facilities to have purportedly violated 40 C.F.R. § 112.9(b)(1) and (2)(2003) and 112.7(e)(5)(ii)(1998) do not indicate when the discharged or released oil began before the time of the inspection. *See* TREX US 2952 (2005 Battles Facility SPCC Inspection Report) at EPA9_0008527; TREX US 2953 (2006 Battles Facility SPCC Inspection Report) at EPA9_0008479; TREX US 2950 (2008 Battles Facility SPCC Inspection Report) at EPA9_0008547 and EPA9_0008549; TREX US2954 (2005 Bell Facility SPCC Inspection Report), at EPA9_0008535; TREX US1175 (2007 and 2008 Bell Facility SPCC Inspection), at EPA9_00852 and EPA9_0008565; TREX 2957 (2008 Casmalia Facility SPCC Inspection), at EPA9_0008600; TREX 2822 (2007 Los Flores Facility SPCC Inspection) at EPA9_0008485); TREX 2956 (2008 Security Facility SPCC Inspection) at EPA9_0008616; TREX 3076 (2008 Williams B Facility SPCC Inspection) at EPA9_0036165-0036166.

232. The timing of the accumulation of oil should be considered in evaluating the alleged violations as such accumulation could have started the day of the inspection or a few hours before any field operators discovered it during their daily inspection for the facility.

233. Finally, HVI responded and resolved all fifteen (15) purported instances of accumulated oil discharge within one (1) day. Dkt. No. 424 (United States' Post Trial Proposed Findings of Fact) at ¶¶ 206-215.

5. Compatible Containment for Oil Storage

234. HVI has ensured that containment was adequate (including being sufficiently resistant) to contain their contents. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 40.

235. Plaintiffs identify four violations where HVI purportedly violated 40 C.F.R. 112.9(c) (2003) by failing to use compatible containers for oil storage. Dkt. No. 424 (United States' Post Trial Proposed Findings of Fact) at ¶¶ 216-220.

236. Three of those purported violations occurred at the following facilities: (1) the Lakeview lease; (2) Lloyd Lease; and (3) the William B lease. Dkt. No. 424 (United States' Post Trial Proposed Findings of Fact) at ¶¶ 216-220.

237. The Lakeview Lease was acquired by HVI about a month prior to the EPA's inspection of the facility and the reported violations. TREX US2822 (2007 Lakeview SPCC Inspection Report) at EPA9_0008484.

238. None of those three facilities produce any oil. *See* Dkt 361-2 (Dimitrijevic Decl.), ¶¶38–39, and 49.

239. The remaining supposed violation occurred at the Battle facility on or around January 12, 2005. Dkt. No. 424 (United States' Post Trial Proposed Findings of Fact) at ¶¶ 216, 217.

240. The large aboveground storage tank (U-903) that triggered the deficiency reported in the SPCC Inspection Report was reported to be corroded, especially near the top. TREX US2952 (2005 Battles SPCC Inspection Report Facility) at EPA9_0008527.

241. However, this storage tank contained only about ten feet of product and the integrity of the lower portion where oil is stored was sound. TREX US2952 (2005 SPCC Inspection Report Battles Facility) at EPA9_0008527.

242. No spill has been recorded involving storage tank (U-903) at the Battles facility before or after each inspection date. TREX US 2968 (2005 Battle Facility SPCC Plan) at HVI027752 (no spill reported after 1/12/2005 inspection involving U-903 tanks); TREX US 2828 (2008 Battle Facility SPCC Plan) at HVI002036 (no spill reported after 2/6/2006 inspection involving U-903 tanks);

TREX 2941 (2011 Battle Facility SPCC Plan) at HVI001085 (no spill reported after 2/12/2008 and 6/1/2008 inspections involving U-903 tanks).

6. HVI Provided SPCC Training.

243. HVI has developed and implemented SPCC training for all its facilities. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶¶ 32, 47; Dkt. No. 401-4 (Ward Dep. Vol. I) at 24:09-11 (Q: "Did you train any employees in SPCC compliance?" A: "Yes.") and 24:19-21 (Q: "And did you yourself have training in the SPCC requirements?" A: "Yes.").

244. The training was in accordance with applicable requirements. Dkt. No. 401-4 (Ward Dep. Vol I) at 25:07-08 ("[W]e trained according to the requirements.").

245. HVI established the Los Flores building as a "classroom" for SPCC training and other safety training. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 32; Dkt. No. 401-4 (Ward Dep. Vol. I) at 96:15-22 (Q: "When you provided this training physically, where did the training take place?" A: "In the new hire orientation office, the safety office. . . It was in Las Flores Canyon." Q: "Did the entire training take place inside that building?" A: "Yes.").

246. Generally, the Production Supervisor and Regulatory, Environmental, and Safety Manager are accountable for training of pumpers, inspectors, and for all records required under the SPCC plan. TREX US2968 (2005 Battles Facility SPCC Plan).

247. The Production Supervisor holds annual spill prevention meetings with pumpers to review SPCC topics, ensure adequate understanding of SPCC requirements, and generally heighten spill-prevention awareness. TREX US2968 (2005 Battles Facility SPCC Plan).

248. A training checklist is provided and utilized by trainers. *See* E.g., TREX US2968 (2005 Battles Facillity SPCC Plan) at HVI027764.

249. All new HVI employees received SPCC training. Dkt. No. 401-4 (Ward Dep. Vol. I) at 25:03-06 (Q: "How often did you give SPCC training to Greka employees?" A: ". . . New hires got it.").

250. New employees were given a copy of the SPCC plan, CAER forms, and field operator checklists, such as the pumpers' checklist. Dkt. No. 401-4 (Ward Dep. Vol. I) at 92:08-93:13 (Q: "Earlier before we marked this exhibit you said there might be something in here. We were talking about the contents of your SPCC training." A: "The pumpers checklist is in here, the CARE form is in here, the phone numbers.").

251. If an SPCC plan is changed or updated, HVI provided employees with annual refresher training. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 47; Dkt. No. 401-4 (Ward Dep. Vol. I) at 23-03-06 (Q: "How often did you give SPCC training to Greka employees?" A: "I would be guessing. I believe it was annually.").

252. Employees were expected to review and follow SPCC plans at their facility. Dkt. No. 400-13 (Scott Proskow Dep. Vol. I) at 21:06-10 (Q: "And once you became facility foreman what were your responsibilities?" A: "My responsibilities were to . . . review and follow SPCC plans")

253. Employees who fail to comply with the SPCC plans are reprimanded and/or terminated. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 33.

D. HVI'S COMPLIANCE WITH FRP REGULATIONS

254. Inactive storage containers at both the Davis and Bell facilities have a capacity of less than one million gallons. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 36. HVI's consultant's calculations at the facilities reflect less than 1,000,000 gallons at each of the two facilities. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 36. Facility Response Plans have not been required for either the Bell or Zaca facilities for many years. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 36. In particular, no tanks

have been added, so there has been no increase in the storage space during the period that HVI operated Bell or Zaca. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 36.

255. Both the Davis and Bell facilities have been properly taken out of service and clean closed. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 36. In particular, the equipment has been free of liquids; valves, pipes, and fittings disconnected; and doors/hatches removed and the openings covered with grating to prevent entrance by animals or humans. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 36.

256. The 5,000 barrel wash tank is out of service at the Bell lease and, accordingly, the volume of its storage capacity is less than 1 million gallons. Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 37.

257. Testimony that as of January 13, 2005, the Bell Facility had a total oil storage capacity greater than or equal to 1 million gallons is not persuasive. *See* Dkt. No. 424 (United States' Post Trial Proposed Findings of Fact) at ¶¶ 224(a) (citing to paragraphs 22 and 30 from Peter Reich's Declaration)).

258. First, the 2005, 2007, and 2008 SPCC inspection at the Bell facility all occurred near or on the same day a release or discharge of oil at the particular facility and exacerbated by severe rain conditions. *See* TREX US2954 (2005 Bell Facility SPCC Inspection Report) at EPA9_0008531 ("The inspection was conducted as a result of referral from the Santa Bara County Fire Department, following . . . oil spills. The inspection was also conducted following massive rain storms that hit the Southern California area in early January, 2005"); TREX US1175 ((2007 and 2008 Bell Facility SPCC Inspection), at EPA9_0008562 ("This inspection was during a significant rain event and the spill was in the clean up phrase.").

259. Second, the SPCC inspection report prepared in connection with Mr. Reich's inspection on January 13, 2005 did not include (a) the total gallons of petroleum storage; and (b) the total gallons of above storage tanks. *See* TREX

US2954 (2005 Bell Facility SPCC Report) at EPA9_0008531 (total gallons of petroleum and total AST gallons "not determined").

260. Third, SPCC reports in connection with the 2005, 2007, and 2008 inspections at the Bell facility did not cite any deficiencies or area of concerns regarding Pit #2 for violating 40 C.F.R. 112.20. *See* TREX US2954 and TREX US1175.

261. Finally, in 2016, Mr. Reich inspected HVI's Zaca facility and Bell facility for any SPCC violations. Dkt. No. 467 at 65:14-16 (10/23/18 Trial Tr. Vol. I, Test. of Reich). The SPCC reports prepared in connection with these inspections expressly indicate that a Facility Response Plan was not required for these facilities. *See* TREX US2858 (2016 Bell Facility SPCC Inspection) at p. 3 of 14 ("N/A" checked as whether facility has a FRP) and TREX US5859 (2016 Zaca Facility SPCC Inspection Report) at p. 3 of 14 (same)

262. Plaintiffs' supporting evidence attempting to show that certain spills at the Bell and Zaca facilities experienced a discharge greater or equal to 10,000 gallons is not persuasive. Specifically, Plaintiffs' contend that (a) as of the July 16, 2007 Bell spill of purportedly 16,627 barrels (698,334 gallons) of oil, the Bell Facility had a reportable discharge in an amount greater than or equal to 10,000 gallons within the last five years; (b) as the December 7, 2007 Bell Spill of purportedly 4,118 barrels (172,956 gallons), the Bell Facility had a reportable discharge in an amount greater than or equal to 10,000 gallons with the last five years; (c) as of the December 7, 2005 Davis spill of purportedly 2,135 barrels (89,670 gallons of oil), the Zaca Facility had a reportable discharge in an amount greater than or equal to 10,000 gallons within the last five years; and (d) as the January 5, 2008 Davis Spill of purportedly 3,252 barrels (136,584 gallons), the Zaca Facility had had a reportable discharge in an amount greater than or equal to 10,000

gallons with the last five years. *See* Dkt. No. 345-1 (United States' Post Trial Proposed Findings of Fact) at ¶¶ 225 (d) and 224(d).

263. The volumes of the spills at the Bell Facility on July 16, 2007 and December 7, 2007 are contested spills. *See infra,* Section III.G. In particular, neither of these spills resulted in over discharge of release of over 10,000 gallons: the July 16, 2007 spill or release resulted in the discharge of 19 barrels of crude oil and 19 barrels of produced water, based upon a proper estimate of recovered material, and the December 7, 2007 spill or release resulted in discharge of 50 barrels of crude oil and 150 barrels of produced water, based on the CAER report.

264. The volumes of the spills at the Zaca Facility on December 7, 2005 and January 5, 2008 are also contested spills. *See infra,* Section III.G. In particular, neither of these spills resulted in a discharge or release of more than 10,000 gallons of oil: the December 7, 2005 spill or release resulted in the discharge of 50 barrels of crude oil and 50 barrels of produced water, based on HVI's reporting and the EPA Order for Removal and the January 5, 2008 spill or release of 50 barrels of crude oil and 250 barrels of produced water, based on the CAER report.

265. Even if this Court found a violation for failure to prepare and submit Facility Response Plans, the maximum penalty it would impose would be $65,000, the amount sought by the United States for these claims.

E. HVI'S DISCHARGES HAVE HAD MINIMAL NEGATIVE ENVIRONMENTAL IMPACTS

1. Crude Oil

266. HVI began buying leases and properties in 1997 to rejuvenate Santa Barbara oilfields using new, safe horizontal drilling methods. Dkt. No. 427-4 (Grewal Decl.) at ¶ 5.

267. The leases and oil production facilities acquired by HVI were operations that had been run by the largest, major oil companies (e.g., Standard Oil, Shell, Unocal, Mobil, Texaco, Chevron). Dkt. No. 427-4 (Grewal Decl.) at ¶ 9.

268. For the leases that were not operated by major oil companies when HVI acquired them, the leases were operated by experienced, large oil companies, Vintage and Saba Petroleum. Dkt. No. 427-4 (Grewal Decl.) at ¶ 10.

269. HVI did not use the conventional steaming water injection method in drilling for oil, reducing the dangers from the use of steaming water injected into the wells that is common for other oil and gas producers in Santa Barbara. Dkt. No. 427-4 (Grewal Decl.) at ¶ 16.

270. HVI drills for heavier crude oil at shallower depths. The oil produced resembles tar or asphaltic like material. Dkt. No. 427-4 (Grewal Decl.) at ¶ 17.

271. HVI's oil is so thick that it can be picked up by a shovel. Dkt. No. 427-4 (Grewal Decl.) at ¶ 17.

272. The oil released from HVI's facilities does not flow easily, unless aided by other agents. Dkt. No. 427-4 (Grewal Decl.) at ¶ 18.

273. All the releases at HVI involved a heavy crude oil as opposed to a light crude oil. Dkt. No. 478 (Wise Trial Testimony) at 20:05- 07. In fact, every clean-up of HVI in oil releases that Mr. Wise was involved in, there was oil that was cleaned up with a shovel. Dkt. No. 478 (Wise Trial Testimony) at 20:14:17.

274. All the HVI spills that Mr. Wise responded to were in an inland zone between Highway 101 and further inland. Dkt. No. 478 (Wise Trial Testimony) at 20:18-21.

275. Dr. Kharaka is not aware of any complaints of harm due to crude oil contaminating the groundwater. Dkt. No. 478 at 93:8-12 (10/22/18 Trial Tr. Vol. II, Test. of Kharaka).

2. Produced Water

276. The government's hydrogeochemist expert, Dr. Kharaka, confirmed that the Produced Water from HVI's releases had little to no documented negative impacts on the affected habitat, surrounding wildlife or humans.

277. HVI's Produced Water to crude oil ratio is approximately 25:1. Dkt. No. 478 at 91:21-23 (10/22/18 Trial Tr. Vol. II, Test. of Kharaka).

278. HVI's Produced Water is 98-99% pure water, with the remaining 1-2% as mostly sodium chloride (salt). *Id.* at 92:13-23.

279. Dr. Kharaka's geological sampling of Produced Water from five of HVI's wellheads revealed that the polycyclic aromatic carbons (PACs), a harmful chemical, were very low in concentration. *Id.* at 94:11-17.

280. In forming his opinion, Dr. Kharaka did not conduct a study regarding the salinity tolerance of the environment allegedly affected by HVI releases. *Id.* at 92:3-12.

281. Dr. Kharaka did not observe any fruit trees, animals or people that were negatively impacted by the Produced Water. *Id.* at 92:24-93:7.

282. No samples were taken beneath or down gradient from the releases to determine whether the Produced Water had been diluted even more. *Id.* at 95:2-7.

283. The historic asphalt deposits in Palmer Road Creek would act as a barrier preventing some or all of the Produced Water from reaching the ground water. *Id.* at 96:18-22.

284. No groundwater samples taken to see if it was indeed contaminated by the Produced Water. *Id.* at 96:23-25.

285. Dr. Kharaka is not aware of any complaints of harm due to Produced Water contaminating the groundwater. *Id.* at 93:8-12.

3. Potential For Harm Was Small

286. Plaintiffs' expert analysis by Beckye Stanton regarding the environmental harm, as well as the amount of natural resources damages sought by the State, shows that the potential for harm was small.

287. Stanton's assessment discussed "the injury to the habitat and the costs necessary to compensate for the interim loss of ecological services that would have

been provided but for the spill until the injured habitat fully recovered to its baseline condition." Dkt. 345-16 (Stanton Decl.), at ¶ 5.

288. Stanton concluded that the recovery time to restore the Palmer Road Creek back to its baseline condition was two years while the recovery time to restore the Zaca Tributary was two to three years. Dkt. 345-16 (Stanton Dec.), at ¶ 8. She further determined that the total cost of restoration was $70,338. Dkt. 345-16 (Stanton Decl.), at ¶ 10.

289. In line with Stanton's opinions, the State seeks a mere $75,365 in natural resource damages, which it is permitted to recover for "all actual damages [caused to] fish, plant, bird, or animal life or their habitat." Thus, the amount of actual harm caused by HVI's discharges has been quantified and is relatively minimal.

F. THE FIVE CONTESTED SPILLS

290. The Government's assertions regarding the volume quantification on the disputed spills are overstated as to the disputed spills. Dkt. No. 476 52:3-56:3; 56:23-59:23; 60:6-62:4; 62:14-66:23 (10/24/18 Trial Tr., Test. of Mesard); Dkt. No. 361-4 (Mesard Decl.) at ¶¶ 26-29; 34-35; 44-49; 54-57; 64-69; 74-84.

291. For each of the following reasons, the Court finds that the evidence of volumes offered by HVI for the December 7, 2005 Davis spill; the July 16, 2007 Bell spill; the December 7, 2007 Blochman Pond Spill; the January 5, 2008 Davis injection tank spill; and the January 29, 2008 Bell spill is more credible than the volumes that the Plaintiffs assert were released.

292. The "stipulations" that the plaintiffs rely upon were required to be signed by HVI employees and expressly state on the forms themselves that they are not definitive. *See* TREX US0092 (Stipulation and Agreement For Amount of Recovered/Spilled Product) ("Stipulation is subject to change if additional information is brought forward, found, located or provided.")

293. The "stipulations" upon which the government bases its volume contentions are not reliable. The forms that HVI's employees were required to sign-off as to the amount of releases or recovered/spills, were signed as part of steps required by the agencies to be completed by HVI, and the information on such forms is not necessarily an accurate reflection of the actual amount of released crude oil or produced water. Dkt. No. 361-1 (Whalen Decl.) at ¶ 33.

294. Other similar estimates by HVI employees and others that the Plaintiffs rely upon are not conclusive.

1. December 7, 2005

295. The December 7, 2005 spill resulted in 50 barrels of crude oil and 50 barrels of produced water being discharged, as reported by HVI at the time. TREX US0822 (OES Hazardous Materials Spill Report).

296. The 100 barrel total is consistent with the EPA Order for Removal, which found that 100 barrels of crude oil had been discharged.

297. If the volume is estimated based upon an analysis of likely released crude oil and produced water, than the most that can be properly estimated would be 598 barrels of oil. Dkt. No. 361-4 (Mesard Decl.) at ¶ 29.

298. Plaintiffs' expert, Hackstedt, did not attempt to estimate the volume of produced water released. Dkt. No. 467 at 20:17-21 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

299. Hackstedt chose to quantify the releases by primarily relying on the estimated production quantity for the month and subtracting the actual production number, however, he acknowledged that the expected oil production numbers "typically vary" from the sales totals actually generated. Dkt. No. 467 at 12:19-13:18 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

300. This was the first time Hackstedt used his chosen method to estimate the quantity of oil spill; further, he did not consult any manuals or publications for

guidance on how to calculate a release in that manner. Dkt. No. 467 at 13:19-14:5 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

301. Hackstedt decided not to use the actual correction factor generated for December 2005 in his release calculation (.1935), and instead used the correction factor from the prior month, November 2005 (.8713), while acknowledging that correction factors vary from month to month. Dkt. No. 467 at 14:6-16; 16:6-9 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

302. While Hackstedt claims the actual correction factor for December 2005 was abnormally low and therefore indicative of a significant release, he fails to appreciate that there have been other months with similarly low correction factors at Zaca when no releases were reported. TREX HV0092 at 18 (Mesard Rebuttal Report). For example, the correction factor at Chamberlin was 0.25 in March 2006 and 0.1 in January 2006. *Id;* Dkt. No. 476 53:11-24 (10/24/18 Trial Tr., Test. of Mesard).

303. Therefore, it is not reasonable to discard the actual December 2005 correction factor of 0.1935 simply because there was a discharge.

304. Hackstedt also did not determine whether the correction factor from November 2005 was an outlier from the previous past months and thus would lead to an abnormally high discharge quantity through his calculation. Dkt. No. 467 at 16:19-24 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

305. Indeed, the November 2005 correction factor was the highest as compared to the previous five months, at .8713. TREX US2527 at 7 (Hackstedt Expert Report). The average correction factor for those six months (June 2005 to November 2005) was significantly lower, at .6845. *Id.*

306. Hackstedt estimated that there were about 2,344 barrels of oil in waste water tank number two, which would have been necessary to release the quantity that the government alleges for this spill. Dkt. No. 467 at 17:4-18 (10/23/18 Trial

Tr. Vol. I, Test. of Hackstedt). Hackstedt, however, acknowledged that one would not expect there to be that much oil in waste water tank number two as its primary purpose is to store water, not oil. *Id.*

307. In order for there to be 2,344 barrels of crude oil in waste water tank number two, the oil pad would have needed to be over 11 feet thick, leaving less than five feet of the tank for water. Dkt. No. 467 at 17:19-18:6 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

308. The average thickness of the oil pad is 2.9 feet. Dkt. No. 361-4 (Mesard Decl.) at ¶ 28. Similarly, oil pad thickness readings from January 2008 range between 3 and 4.8 feet. *Id*. This is all consistent with HVI's operators' goal of keeping a 1.5- to 3-foot pad of Oil in the tank for proper operation. *Id*.

309. Normal operating procedures according to the superintendent was to keep the oil pad at three feet or less. Dkt. No. 467 at 19:9-16 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

310. There are no records to support that the oil pad in waste water tank two has ever reached 11 feet or more. Dkt. No. 467 at 20:1-4 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

311. Plaintiffs' expert, Dr. Johnson's, volume estimates are also unreliable.

312. Dr. Johnson's methodology of relying on a visual estimate for quantification was significantly flawed; that method takes considerable practice and sufficient calibration to confirm the visual estimate accuracy. Dkt. No. 476 54:16-55:14 (10/24/18 Trial Tr., Test. of Mesard).

313. Dr. Johnson has no prior experience in using visual estimations of contaminated solids to determine volume of crude oil contained in the solids. Dkt. No. 467 at 52:9-15 (10/23/18 Trial Tr. Vol. I, Test. of Johnson).

314. Dr. Johnson has no knowledge about who conducted the visual estimations other than they were personnel from OSPR. Dkt. No. 467 at 54:8-11 (10/23/18 Trial Tr. Vol. I, Test. of Johnson).

315. Because Dr. Johnson has no knowledge about who conducted the visual estimations, he doesn't know their level of training, and thus whether they took into consideration moisture contained in the bins, or density differences between oil and soil. Dkt. No. 467 at 54:12-55:4 (10/23/18 Trial Tr. Vol. I, Test. of Johnson).

316. In forming his expert opinions, Dr. Johnson did not conduct any interviews with HVI employees or state employees; he did not review any deposition transcripts; and he never visited a single HVI facility or spill location—Dr. Johnson only spoke with Plaintiffs' counsel. Dkt. No. 467 at 51:11-52:8 (10/23/18 Trial Tr. Vol. I, Test. of Johnson).

317. Further, Dr. Johnson's conclusion, that virtually all bins of collected material after the spill were at 20% oil content based on visual estimates ignores the heterogeneity of the content – some bins have more vegetation, some bins have more soil, some bins have rocks, some bins have personal protection equipment, etc.; therefore, to visually conclude, without any actual content sample analysis, that all bins have 20% oil content is to greatly oversimplify. Dkt. No. 476 54:16-56:3 (10/24/18 Trial Tr., Test. of Mesard).

318. Actual testing performed in 2008, at the same site, confirms that Dr. Johnson's pure visual conclusion in 2005 was unreliable.

319. In 2008, 40 samples from the same site were taken from bins and tested in a lab under the EPA Method 8015, where the analytical values ranged from 1-40% and the average was 7% oil content. Dkt. No. 476 66:5-23 (10/24/18 Trial Tr., Test. of Mesard). Therefore, because the bin collections and samples were taken from the same exact spill location as 2005, a 7% oil content is much

more reliable than the visual estimate of 20% where zero empirical data or analysis was done. *Id.*

320. Joshua Curtis, an OSPR environmental scientist who prepared the Environmental Incident Report and assisted with the response throughout the clean-up, observed no oiled or dead wildlife, apart from one dead mouse. Dkt. No. 467 at 112:4-25 (10/23/18 Trial Tr. Vol. I, Test. of Curtis).

321. HVI took affirmative action to minimize the possibility of any harm to animals after a discharge. For example, Curtis recorded in his report that during the December 7, 2005 cleanup, HVI placed a large light at the affected area with a generator that was kept running at night to keep the wildlife away from the spill site. TREX US0771 at 8 (Environmental Incident Report).

322. Due to stream flow that occurs within rain events, it was estimated by the government that the detrimental presence of Produced Water and any of its constituents would be sufficiently diluted to negligible levels **within one year**. TREX US0771 at 10 (Environmental Incident Report).

2. July 16, 2007

323. The July 16, 2007 spill resulted in 5 barrels of crude oil and 490 barrels of produced water being discharged from an 8" family line. This is the most reliable estimate, based on actual production from DOGGR records, adjusted downward by 30% for the small-sized hole in pipeline and likely duration of release.

324. HVI's expert estimates that there were 19 barrels of crude oil and 19 barrels of produced water released based upon a proper estimate of recovered material. Dkt. No. 361-4 (Mesard Decl.) at ¶ 48.

325. HVI's expert also concluded that if the volume is estimated based upon an analysis of likely released crude oil and produced water, than the most that

can be properly estimated would be 38 barrels of crude oil and 1920 barrels of produced water. *Id.* at ¶ 49.

326. The government's contentions as to the volumes of crude oil and produced water released are inconsistent with the actual DOGGR production records. Dkt. No. 361-4 (Mesard Decl.) at ¶ 44.

327. Rather than attempt to quantify the crude oil discharged through a particular methodology, Hackstedt simply started with 294 barrels which was the quantification by CDFW, and then backed into his other numbers. Dkt. No. 467 at 23:17-19 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

328. In order for the government's alleged quantity to have been released, the spill would have had to occur for over nine days under the assumption that it included three upstream wells and three to four downstream wells, however, there is no evidence that the spill lasted that long without any HVI employees noticing it. Dkt. No. 467 at 23:23-24:11 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

329. Additionally, Hackstedt's blind reliance on DFG's estimates of 294 barrels of crude and approximately 16,000 barrels of produced water does not make logical sense.

330. Based on the size of the hole in the pipeline and the pressure, the oil and produced water would have been shooting out at 60 miles per hour and approximately 120 feet into the air, had the hole been on the top of the pipeline. Dkt. No. 476 56:23-58:2 (10/24/18 Trial Tr., Test. of Mesard).

331. Although the hole was on the underside of the pipeline, the oil and produced water, under Hackstedt's numbers, would still shoot out at over 60 miles per hour, which is entirely inconsistent with the photographic evidence. Dkt. No. 476 58:2-7 (10/24/18 Trial Tr., Test. of Mesard).

332. If Hackstedt's assumption was correct (over 16,000 barrel release), there would be significant staining and oiling around the area where the excavation

took place, however, there is no visual indication of that verifying that the release was of a much smaller magnitude. Dkt. No. 476 58:8-20 (10/24/18 Trial Tr., Test. of Mesard); TREX HVI0092 at 88 (Messard Rebuttal Expert Report)

333. The size of the hole in the pipe further supports the conclusion that Hackstedt's numbers are highly inflated—it is unreasonable to think that over 16,000 barrels could escape at such a high velocity from that hole without it being noticed for over nine days. Dkt. No. 476 58:21-59:3 (10/24/18 Trial Tr., Test. of Mesard); TREX HVI0092 at 89 (Messard Rebuttal Expert Report)

334. Because the wells that fed into this pipeline were off line until up to five or six days before the release was over/discovered, the maximum duration of the release—assuming it happened immediately after the pumps started would be six days, therefore even assuming Hack's number of 1800 barrels per day, the total would be significantly less than 16,333 barrels. Dkt. No. 476 59:4-13 (10/24/18 Trial Tr., Test. of Mesard).

335. Additionally, had there been a release of the magnitude for as many days as the government suggests, the daily production records would have indicated there was something amiss, which they did not. Dkt. No. 476 59:14-23 (10/24/18 Trial Tr., Test. of Mesard).

336. Further in assuming the figure alleged by CDFW of 294 barrels of crude oil was correct, Hackstedt failed to even consider that any of the collected materials in the cleanup process could have been the result of a prior spill in Palmer Road Creek. Dkt. No. 467 at 27:22-28:4 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt). Joshua Curtis observed that HVI's cleanup and recovery crew worked hard to remedy the situation. Dkt. No. 467 at 114:9-13 (10/23/18 Trial Tr. Vol. I, Test. of Curtis).

337. HVI stored the oiled materials in the required haz-mat bins during the removal process until those were full, at which point the crew stored the

contaminated materials on plastic sheets which was consistent with the Incident Action Plan. *See* TREX US1280 at 6 (Incident Action Plan) ("If there are not enough roll-off bins, brush and vegetation should be bagged and stored on plastic until bins become available").

338. Warden Dostal testified that in responding to an oil discharge, after ensuring human safety, the priority is to stop the flow of discharge and contain the spilled discharge to limit the possibility for environmental harm. Dkt. No. 467 at 19:22-20:2 (10/22/18 Trial Tr. Vol. I, Test. of Dostal).

339. By the time Warden Dostal arrived on the scene around approximately 3 pm on July 16, 2007, the HVI crew had shut down the oil flow into the pipe and excavated a large area around the partially buried flowline to stop additional discharge from going into Palmer Road creek. Dkt. No. 467 at 23:15-20 (10/22/18 Trial Tr. Vol. I, Test. of Dostal).

340. Warden Dostal observed that the HVI employees were working hard on the scene to stop flow and prevent further harm. Dkt. No. 467 at 24:5-11 (10/22/18 Trial Tr. Vol. I, Test. of Dostal).

341. Undercutting the government's assertion that HVI failed to timely notify the authorities of the discharge (**by approximately 2.5 hours**, *see* TREX US1372 at 7 (Investigation Report)), there is no evidence that the Advanced Cleanup Technologies employee under contract with the Conoco Phillips Company actually notified an HVI employee of the spill when he allegedly saw signs of it at approximately 10:30 am as Warden Dostal testified that he never actually investigated that issue. Dkt. No. 467 at 26:6-17 (10/22/18 Trial Tr. Vol. I, Test. of Dostal).

342. Palmer Road Creek at the Bell facility was completely dry before the July 16, 2007 spill. Dkt. No. 465 (Gross Trial Testimony) at 85:14-16.

343. Palmer Road Creek was historically used by oil companies who operated at the Bell Facility to transport that oil down slope. Dkt. No. 465 (Gross Trial Testimony) at 86:13:18; Dkt. No. 478 (Wise Trial Testimony) at 31:21-25.

344. It was obvious that Palmer Road Creek had been used to transport oil at one time. Dkt. No. 465 (Gross Trial Testimony) at 86:22:25.

345. The biggest indication of Palmer Road Creek's past use is a very old asphaltic pad, similar to a road, at the bottom of the creek in such thickness that it basically had been there for quite some time. Dkt. No. 465 (Gross Trial Testimony) at 87:06:10.

346. The surface had become hard like asphalt (Dkt. No. 465 (Gross Trial Testimony) at 87:11:13) or had an asphaltic bottom (Dkt. No. 478 (Wise Trial Testimony) at 32:04-06).

347. The hard surface under the Palmer Road Creek runs about a mile close to all the way down at Dominion Creek. Dkt. No. 465 (Gross Trial Testimony) at 89:02-06

348. By the time CDFW's Lieutenant Gross arrived at the July 16, 2007 spill, HVI's employees had already shut down the produced water and oil flowing through the pipes. Dkt. No. 465 (Gross Trial Testimony) at 87:14:17.

349. HVI's employees had constructed an earthen dam in the Palmer Road Creek to contain the spills so that the oil could not continue to flow down through the trough of the creek bed. Dkt. No. 465 (Gross Trial Testimony) at 87:18-20.

350. The cleanup of the July 16, 2007 spill had been conducted to the standard that was set by the State of California by July 31, 2007 or 15 days after the spill. Dkt. No. 465 (Gross Trial Testimony) at 88:23-84:01 (referencing TREX HVI024).

351. CDFW's Lieutenant Gross did not observe any dead or injured wildlife in connection with the July 16, 2007 spill. Dkt. No. 465 (Gross Trial Testimony) at 89:23-90:01.

352. No area outside of the Palmer Road Creek bed was directly impacted in any by the release of oil during the July 16, 2007 spill. Dkt. No. 465 (Gross Trial Testimony) at 90:20-23 (referencing TREX US0971).

353. In order to get to the ocean, oil from the July 16, 2007 spill at the Bell Facility would have had to travel about 30 miles to make it into the Santa Maria estuary. Dkt. No. 465 (Gross Trial Testimony) at 91:20:23 (referencing TREX HVI0102)

3. December 7, 2007

354. The December 7, 2007 spill resulted in 184 barrels of crude oil and 367 barrels of produced water being discharged from pond and containment failure, based on the assumption that 1/3 of the oil pad contained crude oil and 2/3 was produced water. Thus, the total oil pad contained at most 551 barrels of crude oil and produced water.

355. If the volume is estimated based upon an analysis of likely released crude oil and produced water, then the most that can be properly estimated would be 568 barrels of crude oil and 648 barrels of produced water. Dkt. No. 361-4 (Mesard Decl.) at ¶ 57.

356. Plaintiff's expert, Johnson, estimates that only 424 barrels of crude oil and 1,375 barrels of produced water was released based upon an estimate of the recovered material, which is significantly less than the volumes Plaintiffs contend were released. Dkt. No. 345-7 (Johnson Decl.) at ¶¶ 20-21.

357. The amount of crude oil and produced water set forth in the CAER report reflects a lesser amount of 50 barrels of crude oil and 150 barrels of produced

water associated with the December 7, 2007 spill. TREX US0968 (December 7, 2007 CAER).

358. A report of occurrence prepared by the DOGGR also reflects a similar amount of 50 barrels of crude oil and 200 barrels of produced water. TREX US1063 (DOGGR Incident Report).

359. Plaintiff's expert, Hackstedt, assumed that a "surge" of fluid from the wash tank entered the ponds which resulted in the spill. Dkt. No. 467 at 28:9-17 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

360. The surge hypothesis has two premises: (a) Somebody left the valve open, or (b) The vent line got plugged up, siphoned all of the water out, and then the plugged section somehow cleared itself. Dkt. No. 467 at 28:23-29:4 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

361. There is no evidence of human error to support premise one, that a valve was left open. Dkt. No. 467 at 29:5-8 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

362. There is no evidence of mechanical error to support premise two, that a vent line was plugged, all water was siphoned out of the line, and then the plugged vent line somehow cleared. Dkt. No. 467 at 29:14-30:4 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

363. Hackstedt created the surge hypothesis here in order to support the discharge theory, although there is no corroborating evidence. Dkt. No. 467 at 34:13-18 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

364. After learning about a problem with the alarm system leading to the cause of the discharge, Warden Dostal asked Susan Whalen for and reviewed the alarm records for a month prior to the spill. Dkt. No. 345-8 (Dostal Decl.) at ¶ 18; Dkt. No. 467 at 38:7-18 (10/22/18 Trial Tr. Vol. I, Test. of Dostal).

365. While Warden Dostal learned that there were 109 incidents of the alarm being triggered in the prior month, he does not have any sense due to a lack of investigation as to how many of those were triggered due to an actual high level fluid situation, even though he was informed from HVI employees that they had been testing the alarm system. Dkt. No. 467 at 40:19-41:2 (10/22/18 Trial Tr. Vol. I, Test. of Dostal).

366. Furthermore, Warden Dostal reported in his Investigation Report after conducting interviews that the day before the spill, on December 6, 2007, the electrician Herbert Romine and the operator Agapito Santoy had tested the alarm system at 6:30 pm and it had worked properly. TREX US0969 at 7 (Investigation Report). Also, that evening the float levels were at an acceptable level and going down. TREX US0969 at 7 (Investigation Report).

367. The December 7, 2007 spill was into the same asphalted creek – Palmer Road Creek – as the July 16, 2007 release. Dkt. No. 465 at 92:15-17 (10/22/18 Trial Tr. Vol. I, Test. of Gross).

368. By the time CDFW's Lieutenant Gross arrived at the December 7, 2007 spill, HVI's employees had already constructed berms and dams to stop the flow of the oil. Dkt. No. 465 at 92:18-93:04 (10/22/18 Trial Tr. Vol. I, Test. of Gross).

369. HVI's employees then built a larger earthen berm after the December 7, 2007 spill to try and prevent any oil from escaping if there were a rain event later. Dkt. No. 465 at 93:05-09 (10/22/18 Trial Tr. Vol. I, Test. of Gross).

370. Despite HVI's best efforts, there was a large unanticipated rain event that caused a breach in the dam and allowed the oil to travel further down the stream. Dkt. No. 465 at 93:10-14 (10/22/18 Trial Tr. Vol. I, Test. of Gross).

371. CDFW's Lieutenant Gross considered the cause of the breach to be an act of God. Dkt. No. 465 at 93:15-94:06 (10/22/18 Trial Tr. Vol. I, Test. of Gross).

372. The cleanup of the December 7, 2007 spill had been conducted to the standard that was set by the State of California by December 19, 2007 or 12 days after the spill. Dkt. No. 465 at 94:15-19 (10/22/18 Trial Tr. Vol. I, Test. of Gross) (referencing TREX HVI0096).

373. CDFW's Lieutenant Gross did not observe any dead or injured wildlife after the December 7, 2007 spill. Dkt. No. 465 at 94:20:22 (10/22/18 Trial Tr. Vol. I, Test. of Gross).

4. January 5, 2008

374. The January 5, 2008 spill resulted in 130 barrels of crude oil being discharged from an injection tank. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 29. Based on the contemporaneous records and testimony, during the estimated period of about 13.33 hours between the alarm signal for Waste Water Tank #2 and the "shut in," 751.15 barrels of produced water were added to the Water Tank #2. *Id.* This left a remaining capacity of 618.75 in the tank, amounting to 132.4 barrels of crude oil and produced water. *Id.* Because the release was from the top of the tank, most of the material would have been crude oil. *Id.*

375. If the volume of crude oil and produced water released is estimated based upon the weight of excavated solids and volume of produced water is based on the assumption of 100 barrels in the vacuum truck, then the most that can be properly estimated would be 242 barrels of crude oil and 284 barrels of produced water. Dkt. No. 345-7 (Johnson Decl.) at ¶¶ 23-24.

376. The amount of crude oil and produced water set forth in the CAER report reflects a lesser amount of 50 barrels of crude oil and 250 barrels of produced water in connection with the January 5, 2008 spill. TREX US0194 (January 5, 2008 CAER).

377. Plaintiff's experts, Johnson did not attempt to estimate the produced water released. Dkt. No. 345-7 (Johnson Decl.) at ¶¶ 22-24.

378. Hackstedt's chosen method to estimate the volume of crude oil and produced water that was released from the Waste Water Tank relied on the conclusion that the pump continued to inject waste water into the tank at an amount which was based on the capacity of the alleged particular type of pump. Dkt. No. 467 at 34:23-35:4 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt). This quantification method is unreliable.

379. HVI's production foreman, Mr. Proskow, shut down the inflow immediately upon discovering the release and kept track of the levels in the tank and the amount of oil that had been removed from the tank during the emergency response. Therefore, one can determine the amount of outflow without relying on the assumption of what the pump did based on the model, as Hackstedt did. Dkt. No. 476 64:4-13 (10/24/18 Trial Tr., Test. of Mesard).

380. The number and type of pumps is irrelevant because the operator collected the actual data which was independent from what the pumps allegedly do in theory. Dkt. No. 476 64:13-16 (10/24/18 Trial Tr., Test. of Mesard).

381. Nevertheless, Hackstedt ignored Mr. Proskow's actual calculations and figures as to rate of injection of produced water into the ground to empty the tank. Dkt. No. 467 at 35:10-23 (10/23/18 Trial Tr. Vol. I, Test. of Hackstedt).

382. Relying on actual data that was calculated is more reliable than the theoretical method Hackstedt employed, which dwarfs the empirical data. Dkt. No. 476 65:11-24 (10/24/18 Trial Tr., Test. of Mesard).

383. Although included in Warden Dostal's Investigation Report, the government failed to mention that the appropriate warning alarms for the Davis Tank Battery were properly triggered at 6:40 pm and then again at 7:08 pm on January 4, 2008. However, the third-party alarm company HSM Electronic Protection Services did not attempt to notify HVI regarding the high fluid level due to their operators being overloaded with calls because of heavy rains. TREX

US0195 at 6 (Investigation Report); Dkt. No. 467 at 46:22-49:13 (10/22/18 Trial Tr. Vol. I, Test. of Dostal).

384. Therefore, because HVI's precautionary alarm system worked as intended, and yet the resulting discharge occurred solely because of a third-party's failure to do its job, HVI should not be found negligent with respect to the discharge on January 5, 2008.

385. There were no observations of oiled, injured, or dead animals documented in the Supplemental Environmental Incident Report prepared by Michael Connell of the OSPR department for DFG. TREX US3139 (Supplemental Environmental Incident Report).

386. The alarm operator failed to notify HVI after the alarm was received causing the January 5, 2008 spill. Dkt. No. 465 (10/22/18 Trial Tr. Vol. I, Test. of Dostal) at 47:18-49:18.

387. By the time CDFW's Lieutenant Gross arrived at the January 5, 2008 spill, HVI's employees had already stopped the flow of oil from the tank. Dkt. No. 465 at 95:01-04 (10/22/18 Trial Tr. Vol. I, Test. of Gross).

388. When CDFW's Lieutenant Gross arrived at the January 5, 2008 spill, he believed that HVI's employees followed instructions to the best of their ability and it worked. Dkt. No. 465) at 95:05-18 (10/22/18 Trial Tr. Vol. I, Test. of Gross).

389. The cleanup of the entire spill path up to the Chamberlain fence in connection with the January 5, 2008 spill had been properly cleaned up according to the State of California by February 5, 2008. Dkt. No. 465 at 97:10-17 (10/22/18 Trial Tr. Vol. I, Test. of Gross) (referencing TREX HVI0019).

390. The entire spill area from the January 5, 2008 spill had been cleaned up properly according to the State of California by May 2, 2008. Dkt. No. 465 at 97:20-23 (10/22/18 Trial Tr. Vol. I, Test. of Gross) (referencing TREX HVI0093).

391. CDFW's Lieutenant Gross believed that HVI's employees followed his directions with respect to the cleanup of the January 5, 2008 to the best of their ability. Dkt. No. 465 at 97:24:98:05 (10/22/18 Trial Tr. Vol. I, Test. of Gross).

392. DFW's Lieutenant Gross also believed that HVI's cleanup efforts in response to the January 5, 2008 release were satisfactory, when he signed off on them. Dkt. No. 465 at 98:06-10 (10/22/18 Trial Tr. Vol. I, Test. of Gross).

5. January 29, 2008

393. The January 29, 2008 spill resulted in 1 barrel of crude oil and 200 barrels of produced water being discharged from the header pressure valve, based evidence that the pipeline involved transported produced fluids with limited amounts of crude oil. TREXUS0009. The pipeline involved in the release carried produced water, not crude oil. DOGGR inspector Ross Brunetti observed that "the fluid [released] was produced water with only minor oil," and not more than one barrel of crude oil was discharged.

394. Applying those volumes to the $1,100 penalty for oil discharged, which applies to each of the spills in the absence of a finding that with respect to the particular spills at issue that the discharge was the result of gross negligence or willful misconduct, leads to a maximum penalty of $460,000 for the crude oil released and of $1,524,600 for the produced water released prior to considering the eight mandatory penalty factors. The total maximum penalty without considering the eight mandatory settlement factors is $1,985,500.

395. CDFW's Lieutenant Gross did not observe any dead or injured wildlife in connection with the January 29, 2008 spill. Dkt. No. 465 (10/22/18 Trial Tr. Vol. I, Test. of Gross) at 99:25-100-05.

396. Mr. Wise agreed that there was no more than 126 barrels of oil released into Palmer Creek in connection with the January 29, 2008 spill. Dkt. No. 478 at 36:20-37:07 (10/22/18 Trial Tr. Vol. II, Test. of Wise); TREX US0092.

397. Based upon the findings above, for the disputed spill volumes, the total volumes released is found to be 372 barrels of crude oil and 1107 barrels of produced water.

G. THE STIPULATED SPILLS

398. The government and HVI have stipulated to the volumes relating to most of the spills for penalty purposes.[3]

399. The volumes of two distinct discharges are at issue. These are (a) the volumes of barrels of oil and (b) the volumes of produced water from the discharges.

400. The parties have stipulated that HVI discharged one barrel of crude oil and 200 barrels of produced water during the spill from the Bell Facility on June 8, 2005. Dkt. No. 442 at Admitted Fact ¶ 5.pp (Final Pretrial Conf. Order).

401. The June 8, 2005 spill released oil into an ephemeral creek when it was dry. TREX US 1232 (CAER Report); Dkt. No. 92-3 (SUF D5).

402. The parties have stipulated that HVI discharged 20 barrels of crude oil and 50 barrels of produced water during a spill from the Bell Facility on July 13, 2005. Dkt. No. 442 at Admitted Fact ¶ 5.qq (Final Pretrial Conf. Order).

403. The July 13, 2005 spill released oil into an ephemeral creek when it was dry. TREX US1252 at EPA9_0009430 (CAER Report); Dkt. No. 92-3 (SUF D6).

404. The parties have stipulated that HVI discharged 2 barrels of crude oil and 20 barrels of produced water during the spill from the Bell Facility on August 11, 2005. Dkt. No. 442 at Admitted Fact ¶ 5.rr (Final Pretrial Conf. Order).

405. The August 11, 2005 spill released oil into an ephemeral creek when it

[3] These are: the June 8, 2005 Bell spill, the July 13, 2005 Bell spill, the August 11, 2005 Bell spill, the December 27, 2008 Bell spill, the May 1, 2009 Bell spill, the October 14, 2010 Bell spill and the December 21, 2010 Bell spill. Dkt. No. 442 at Admitted Fact ¶¶ 5.pp-rr; xx-zz; aaa (Final Pretrial Conf. Order).

was dry. TREX US1494 (CAER Report); Dkt. No. 92-3 (SUF D10).

406. The parties have stipulated that HVI recovered 3.93 barrels of oil from the spill from the Bell Facility on December 27, 2008. Dkt. No. 442 at Admitted Fact ¶ 5.xx (Final Pretrial Conf. Order).

407. The December 27, 2008 spill released oil into an ephemeral creek when it was dry. TREX US0676 (OES Report); Dkt. No. 92-3 (SUF D12).

408. The parties have stipulated that for purposes of this litigation, HVI discharged nine barrels of crude oil from the spill from the Bell Facility on May 1, 2009, and that Plaintiffs did not present evidence as to the quantity of the produced water discharged from the spill. Dkt. No. 442 at Admitted Fact ¶ 5.yy (Final Pretrial Conf. Order).

409. The May 1, 2009 spill released oil into an ephemeral creek when it was dry. TREX US1192 (CAER Report); Dkt. No. 92-3 (SUF D14).

410. The parties have stipulated that HVI discharged ten barrels of crude oil and five barrels of produced water during the spill from the Bell Facility on October 14, 2010. Dkt. No. 442 at Admitted Fact ¶ 5.zz (Final Pretrial Conf. Order).

411. The October 14, 2010 spill released oil into an ephemeral creek when it was dry. TREX US0569 at DFG002801 (Investigation Report); Dkt. No. 92-3 (SUF D8).

412. The parties have stipulated that HVI discharged one barrel of crude oil and four barrels of produced water during the spill from the Bell Facility on December 21, 2010. Dkt. No. 442 at Admitted Fact ¶ 5.aaa (Final Pretrial Conf. Order).

413. The December 21, 2010 was contained and did not enter the seasonal creek. TREX US3174 at HVI020201 (Incident Report).

414. The total volumes for the spills that the parties have stipulated to are 47 barrels of crude oil and 279 barrels of produced water. Dkt. No. 442 at Admitted

Fact ¶¶ 5.pp-rr; xx-zz; aaa (Final Pretrial Conf. Order).

415. The total volumes for the stipulated and disputed spills are 419 barrels of crude oil and 1,386 barrels of produced water.

H. THE MAXIMUM STATUTORY PENALTY AVAILABLE

416. Based upon the findings above, this Court finds that the maximum penalty to be imposed under the CWA for the twelve discharges at issue is $1,985,500. No violations were found, and thus no penalties will be imposed, based on the alleged SPCC plan and FRP violations.

417. Even if this Court had found violations based on those claims, the penalties would have been $357,500 for the alleged failure to develop and maintain a flowline maintenance program; $1,897,500 for the other SPCC plan claimed violations; and $65,000 for the alleged FRP violations. The total penalties would have been $4,305,000 if this Court had found in favor of United States on the SPCC and FRP violations.

I. THE PENALTY FACTORS UNDER THE CWA

1. Seriousness

418. There was a minimal nexus or connection to a TNW. Dkt. No. 361-3, (Josselyn Decl.) at ¶11; 5:13-22.

419. Palmer Road Creek is known in the Santa Maria/Santa Barbara community as "Asphalt Creek." Dkt. No. 427-4 (Grewal Decl.) at ¶ 13.

420. In the past, local industry (oil producers), as a pattern and practice, transported oil through the drainage which parallels Palmer Road. Dkt. No. 427-4 (Grewal Decl.) at ¶¶ 13-14; Dkt. No. 465 at 87:6-13 (10/22/18 Trial Tr. Vol. I, Test. of Gross).Palmer Road Creek's "bed," at various points, exhibits asphaltic buildups several feet deep—up to 30 feet. Dkt. No. 478 at 165:1-20 (10/22/2018 Trial Tr. Vol. II, Test. of Wise).

421. Palmer Road Creek's bank most likely formed as a result of Santa

Barbara County's typically heavy, thick crude oil being transported down the drainages for several decades during the 1900s. Dkt. No. 427-4 (Grewal Decl.) at ¶¶ 13-14.

422. The low volume quantities for the minor spills, and as to which the parties have stipulated to for the purposes of imposing penalties, indicate that they should not be considered serious spills for the purposes of imposing penalties. Dkt. No. 442 at Admitted Fact ¶¶ 5.pp-rr; xx-zz; aaa (Final Pretrial Conf. Order).

423. The total stipulated volumes for the minor spills are 47 barrels of crude oil and 279 barrels of produced water. Dkt. No. 442 at Admitted Fact ¶¶ 5.pp-rr; xx-zz; aaa (Final Pretrial Conf. Order).

424. The total volumes of crude oil and produced water for the five contested spills as this Court has found in above, also are not substantial volumes relative to other litigation brought by the United States under the Clean Water Act.

425. The total volume of crude oil for the contested spills is 372 barrels of crude oil and 1170 barrels of produced water. *See supra*, Section III.G.

426. Since 2008 there have been no significant spills that resulted in a release outside of containment. Dkt. No. 427-4 (Grewal Decl.) at ¶ 58.

427. All of the spills were the result of HVI operating on-shore oil and gas production facilities. *See* EPA, Types of Crude Oil, https://www.epa.gov/emergency-response/types-crude-oil (last updated Jan. 23, 2017) (characterizing heavy, sticky oils as low toxicity and non-fluid oils as non-toxic).

428. The nature of the spills as well as the crude oil and produced water spilled are such that there was minimal impact on the environment. Dkt. No. 478 at 86:2-25 (10/22/18 Trial Tr. Vol. II, Test. of Stanton); Dkt. No. 434-5 (Stanton Decl.) at ¶¶ 5-10.

429. HVI produces oil that resembles tar or asphaltic like material. Dkt. No. 478 at 20:14-17 (10/22/18 Trial Tr. Vol. II, Test. of Wise); Dkt. No. 427-4 (Grewal Decl.) at ¶ 17.

430. The oil HVI produces is of low toxicity. *See* EPA, Types of Crude Oil, https://www.epa.gov/emergency-response/types-crude-oil (last updated Jan. 23, 2017) (characterizing heavy, sticky oils as low toxicity and non-fluid oils as non-toxic); Dkt. No. 427-4 (Grewal Decl.) at ¶ 19.

431. The barrels of "produced water" are not on par with oil and the impact of discharges of produced water cannot be equated with barrels of crude oil for the volume-based penalty calculations. *See* Dkt. No. 478 at 92:13-23 (10/22/18 Trial Tr. Vol. II, Test. of Kharaka) (government expert testifying that HVI's Produced Water is 98-99% pure water, with the remaining 1-2% as mostly sodium chloride (salt)).

432. This significant reduction in harm caused by produced water is reflected by the penalties sought by the State—for every gallon of oil discharged, the State seeks $20 in Water Code Violation penalties; however, it only seeks $5 in penalties per gallon of produced water discharged. *See generally,* Dkt. 471 (State's Proposed Conclusions of Fact and Law). Therefore, the State concedes that produced water is at least one quarter as harmful as oil.

433. The produced water that HVI released is comprised of 98-99% pure H2O. Dkt. No. 478 at 92:13-23 (10/22/18 Trial Tr. Vol. II, Test. of Kharaka). Of the remaining 1 to 2%, the majority of the content is salt. *Id.* Pure H2O and sodium chloride (salt) make up 99.6 to 99.9% of the HVI-CC produced water. *Id.*

434. The PAH level in HVI's produced water is far lower than PAH levels in produced water from regions outside of California's Central Valley.

435. The PAH level in HVI's produced water is so low that it has only a minor, if any, impact on the environment. Dkt. No. 478 at 94:11-17 (10/22/18 Trial Tr. Vol. II, Test. of Kharaka).

436. The highest salinity of HVI's produced water that was sampled was only 50% the salinity of sea water.

437. Whatever oil is included or travels with the produced water HVI released is not going to sink down all the way to the ground water.

438. Government officials investigating and responding to the HVI spills never observed navigable waters of the United States, or a shoreline adjoining a navigable waterway of the United States, impacted by a HVI spill.

439. There is old oil (from historical use of the creeks before HVI began operating any of the leases at issue), which impacts the sampling or analysis that is done after the spill.

440. Because of the historical (pre-HVI) use of the creek-beds to transport oil, there is no reliable way to determine from samples taken at HVI spill sites whether the oil and other substances were from an HVI spill or pre-dated HVI.

441. CDFW did not demonstrate that HVI's spills were deleterious to fish, plant life, mammals or bird life.

442. Government officials investigating and responding to the **July 16, 2007** spill only observed one oiled fence lizard and mouse as the only deceased wildlife. TREX US1339 (OSPR Biological Report 7/16/07) at DFG000975. Even then, they did not (and could not) know if that spill caused that its death.

443. The July 16, 2007 spill was cleaned up adequately, as indicated by the forms from the State indicating that no further clean-up was required. TREX HVI024; ¶ 99. HVI removed a pipeline without damage to the creek.

444. The State of California calculated the cost to restore the watercourses impacted by the intermittent stream at issue in the July 16, 2007 spill to be only $10,480. Dkt. No. 434-5 (Stanton Decl.) at ¶ 10.

445. The State of California itself used an estimated time of two to three years for a recovery from the environmental impacts of the July 16, 2007 spill. Dkt. No. 434-5 (Stanton Decl.) at ¶ 8.

446. The State of California calculated the cost to restore the watercourses impacted by the **December 7, 2007** spill, to a level satisfactory to it as $10,989. That number reflects the amount to make the public whole from injuries as a result of that spill.

447. The creek allegedly impacted by the **December 7, 2007** spill was already highly degraded from accumulation of asphalt from historical spills and intentional discharges. Dkt. No. 478 at 86:2-25 (10/22/18 Trial Tr. Vol. II, Test. of Stanton).

448. Government officials investigating and responding to the **December 7, 2007** did not observe any wildlife injured as a result of the spill.

449. The **December 7, 2007** spill was cleaned up adequately, as indicated by the forms from the State indicating that no further clean-up was required. TREX HVI018 (December 7, 2007 Sign Off).

450. The State of California calculated the cost to restore the watercourses impacted by the intermittent stream at issue in the **December 7, 2007** spill to be only $10,592. Dkt. No. 434-5 (Stanton Decl.) at ¶ 10.

451. The State of California itself used an estimated time of two to three years for a recovery from the environmental impacts of the **December 7, 2007** spill. Dkt. No. 434-5 (Stanton Decl.) at ¶ 8.

452. Government officials investigating and responding to the **January 5, 2008 Zaca Spill**, only observed one Barn Owl, one Red-Tailed Hawk, a Striped

Skunk, a Black Racer Snake, an unidentified bird, and 3 Western Fence Lizards as the only deceased wildlife. TREX US00195 at EPA9_0269236 (CDFW Investigation Report 1/5/08).

453. Government officials identified the Barn Owl's cause of death as from flying into a metal bin and the remaining wildlife's cause of death as from the oil from the Zaca spill. Dkt. No. 345-9 (Gross Decl.) at ¶ 34.

454. The State of California signed off on the clean-up of the **January 5, 2008 Zaca Spill** thirty-one days later stating that "no further clean-up was required" from the entire spill path up to the Chamberlin Fence, and again on May 2, 2008, the State executed a Sign Off Sheet for the remaining area. TREX HVI0019 (February 5, 2008 Sign Off); TREX HVI0093 (May 2, 2008 Sign Off).

455. The State of California calculated the cost to restore the watercourses impacted by the intermittent stream at issue in the **January 5, 2008 Zaca Spill** to be $34,404. Dkt. No. 345-16 (Stanton Decl.) at ¶ 10.

456. The State of California itself used an estimated time of two to three years for a recovery from the environmental impacts of the **January 5, 2008 Zaca Spill**. Dkt. No. 345-16 (Stanton Decl.) at ¶ 8.

457. Government officials investigating and responding to the **January 29, 2008 Bell Upper Pond Spill** did not observe any wildlife that was oiled or injured. Dkt. No. 465 at 100: 3-5 (10/22/18 Trial Tr. Vol. I, Test. Of Gross).

458. The State of California calculated the cost to restore the watercourses impacted by the intermittent stream at issue in the **January 29, 2008 Bell Upper Pond Spill** to be $14,862. Dkt. No. 345-16 (Stanton Decl.) at ¶ 10.

459. The State of California itself used an estimated time of two years for a recovery from the environmental impacts of the **January 29, 2008 Bell Upper Pond Spill**. Dkt. No. 345-16 (Stanton Decl.) at ¶ 8.

460. The State of California calculated the natural resource damage of the **December 27, 2008 Bell Spill** to be $5,026.95. That number reflects the amount to make the public whole from injuries as a result of that spill. The creek bed allegedly impacted had already been highly degraded in the past with accumulations of asphalt pavement from historical spills. Dkt. No. 478 at 86:06-25 (10/22/18 Trial Tr. Vol. II, Test. of Stanton).

461. Plaintiffs have no evidence that any red-legged frogs or California Salamander were injured by HVI's releases. *See generally* Dkt. No. 345-15 (Curtis Decl.); Dkt. No. 467 at 112:04-25 (10/23/18 Trial Tr. Vol. I, Test. of Curtis).

462. The government's environmental impact expert cannot say that there was ANY harm to any endangered species. Dkt. No. 469 64:11-65:07 (10/24/18 Trial Tr., Test. of Barron Decl.).

463. The environmental harm caused by the releases as calculated by the state of California CFDW natural resource damage assessment ("NRD") to total $70,338. Dkt. No. 345-16 (Stanton Decl.) at ¶ 10.

464. The California Department of Fish and Wildlife signed formal sheets stating that no further clean-up was required and sent those to HVI for the Palmer Road Family Line Spill (July 16, 2007) (TREX HVI024); Bell Injection Pond Release (Dec. 7, 2007) (TREX HVI018); Davis Lease Tank Battery Creek Spill (Jan. 5, 2008) (TREX HVI019); and Palmer Road Creek Spill (Jan. 29, 2008). (TREX HVI020). Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 99.

465. No special status species are known to occur in the area affected by the December 7, 2005 and January 5, 2008 discharges. TREX US0771 at 7 (Environmental Incident Report).

466. During the response effort for the July 13, 2005 Bell spill, employees from Wildlife and RWQCB determined in the upstream portion of Palmer Road Creek, there was a subsurface layer of oil contaminated sediment and subsurface

hardened oil (asphalt pavement) from prior releases that should be removed. Dkt. No. 345-14 (Boggs Decl.) at ¶ 14. This effort to remove oil and asphalt from previous releases took approximately five weeks. *Id.* at ¶ 15.

467. Dr. Stanton, the government's environmental damages expert, conducted a "Resource Equivalency Analysis" – a commonly applied methodology designed to answer three fundamental questions: (1) what was the extent of the resource injury that resulted from the releases of crude oil and associated production material commonly known as "produced waters"?; (2) how badly was the particular resource, in this case creek bed, banks and surrounding vegetation, injured by the oil spill?; and (3) how long will it take for the injured resource – here the streambed – to recover to its baseline condition? Dkt. No. 345-16 (Stanton Decl.) at ¶ 3.

468. Dr. Stanton conducted the Resource Equivalency Analysis for four of the five contested discharges, and those with the greatest alleged discharge magnitudes by the government: 7/16/07 Bell spill; 12/7/07 Bell spill; 1/5/08 Davis spill; and 1/29/08 Bell spill. *Id.* at ¶ 5.

469. Dr. Stanton confirmed that those four releases did not cause extensive actual environmental damage.

470. Specifically, Dr. Stanton determined for the three Bell spills that impacted Palmer Road Creek, there was a **two-year recovery time until the affected habitat fully recovered back to baseline ecological condition**. *Id.* at ¶ 8.

471. Further, Dr. Stanton acknowledged that there were subsurface oil deposits and asphaltic residue that preexisted before HVI's releases in Palmer Road Creek, which reduced the level of injury to the habitat. Dkt. No. 478 at 86:2-25 (10/22/18 Trial Tr. Vol. II, Test. of Stanton).

472. Dr. Stanton determined that with the Davis spill, there was a **two to three-year recovery time until the affected habitat fully recovered back to baseline ecological condition**. Dkt. No. 345-16 (Stanton Decl.) at ¶ 8.

473. Dr. Stanton further calculated the "**costs necessary to compensate for the interim loss of ecological services** that would have been provided but for the spill until the injured habitat fully recovered to its baseline condition." *Id.* at ¶ 5.

474. The natural resource damage costs for the four spills that Dr. Stanton analyzed **totaled $70,338.** *Id.* at ¶ 10.

475. DFG/OSPR calculated the cost necessary to compensate for the interim loss of ecological services from the December 7, 2005 discharge as $16,989. TREX US0771 at 11 (Environmental Incident Report).

476. EPA's Mr. Wise never observed any oil that made its way into the Santa Ynez River in connection with oil releases from the Zaca Facility. Dkt. No. 478 at 23:21-24 (10/22/18 Trial Tr. Vol. II, Test. of Wise).

477. EPA's Mr. Wise never observed any oil that made its way into the Zaca Creek River in connection with oil releases from the Zaca Facility. Dkt. No. 478 at 23:25-24:03 (10/22/18 Trial Tr. Vol. II, Test. of Wise).

2. Economic Benefit

478. The "economic benefit" calculations proffered by the Plaintiffs are unreliable.

479. The Plaintiffs' expert assumed that there were violations of many SPCC plan requirements and of the FRP requirements, which this Court has not accepted.

480. The government's economist relies entirely on costs compiled by another expert, Mr. Kinworthy, who acknowledges that most of the cost estimates contained in his report reflect improvements and additional procedures that he recommends that were not required by law or regulation at the time. Dkt. No. 479

at 68:15-23 (10/23/18 Trial Tr. Vol. II, Test. of Meyer); Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 35.

481. The recommendations suggested by Mr. Kinworthy reflect his preferences, not what will work and what is required by law. Examples include: Mr. Kinworthy's costs avoided/delayed for "compliance" for ensuring adequacy of secondary containment is overstated because (as he admits) HVI is entitled to use earthen berms and is not required to use concrete (which he uses as a cost basis); Mr. Kinworthy includes costs for hiring of third parties to do tasks that can (and perhaps should) be done by HVI's own personnel; Mr. Kinworthy includes costs to create entire SPCC plans rather than correct the alleged deficiencies. Dkt. No. 479 at 38:21-41:22; 43:7-45:23 (10/23/18 Trial Tr. Vol. II, Test. of Kinworthy); Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 35.

482. Mr. Kinworthy includes costs for the completion of various tasks (such as pressure testing each line) that he admits he does not know whether were actually performed or not by HVI. He also includes costs for items associated with facilities (e.g. Lloyd, U-Cal) that were closed or sold. Dkt. No. 479 at 41:23-42:4 (10/23/18 Trial Tr. Vol. II, Test. of Kinworthy); TREX US3214 (Appendix D of Kinworthy Report).

483. The Government's economic benefit expert, Dr. Joan Meyer used each of Mr. Kinworthy's costs for implementing each of his recommendations in her computation of "economic benefit" to HVI for alleged non-compliance – recommendations that Mr. Kinsworthy himself admits are not required by any federal or state law or regulation and certainly were not at the time of the alleged deficiency. Dkt. No. 479 at 68:15-23 (10/23/18 Trial Tr. Vol. II, Test. of Meyer); Dkt. No. 423-1 (Meyer Decl.) at ¶ 12.

484. Dr. Meyer's report relies almost exclusively on the alleged economic benefit from not adopting Mr. Kinworthy's recommendations for enhanced flowline

maintenance efforts and testing of the alarm system, which are not required. Dkt. No. 479 at 71:12-73:9 (10/23/18 Trial Tr. Vol. II, Test. of Meyer).

485. Indeed, 91% of Dr. Meyer's calculated economic benefit is due to the alleged avoided recurring costs attributed to flowline maintenance and alarm system testing. Dkt. No. 479 at 69:7-22 (10/23/18 Trial Tr. Vol. II, Test. of Meyer).

486. This alleged economic benefit, which is not required by law, amounts to $6,382,470 of the government's total alleged benefit of $6,916,254. TREX US2677 at C-12 (Meyer Expert Report).

487. After adopting the improper baseline costs, the government economist begins her analysis by departing completely from the EPA's own guidelines and specific model on how to calculate the economic benefit for a violator.

488. Plaintiffs' expert discounts any negative economic costs to HVI for any non-compliance. Dkt. No 472 at ¶¶ 255 (U.S. Post-Trial Proposed Findings of Fact).

489. Plaintiffs' expert did not consider the costs of clean-up in assessing the "economic benefit" and did not know if HVI lost millions of dollars when it was forced to shut down certain of its oil production facilities after the oil spills in this case. Dkt. No 472 at ¶¶ 272-273 (U.S. Post-Trial Proposed Findings of Fact).

490. Plaintiffs' expert did not factor in the $2.25 million in removal costs that have been imposed upon HVI as a result of the violations. Dkt. No 472 at ¶¶ 272-273 (U.S. Post-Trial Proposed Findings of Fact).

491. In evaluating the claimed economic benefit to HVI from the alleged lack of compliance, the substantial negative impact is relevant. HVI expended hundreds of thousands in clean-up costs and lost tens of millions of dollars when it was forced to shut down certain of its production facilities after the oil spills. Dkt. No. 427-4 (Grewal Decl.) at ¶ 66; Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 21.

492. HVI was forced to shut down a substantial part of its Santa Maria oil

production facilities in 2008 for about 7 months and lost tens of millions of dollars in revenue and accrued hundreds of millions of dollars in liability under its credit facilities with lenders. Dkt. No. 427-4 (Grewal Decl.) at ¶ 66; Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 21.

493. Removal of the Bell and Gato Ponds also caused substantial economic harm to HVI, and to the land-owners of the leases, as permits for these vital assets (new ponds) are very difficult if not impossible to secure in Santa Barbara County. The removal of these Ponds has materially impeded operations for HVI. Production levels have been substantially lower since the actions of the EPA in 2008. Dkt. No. 427-4 (Grewal Decl.) at ¶ 65.

494. In sum, this Court finds that there was no economic benefit to HVI from the violations.

J. CULPABILITY

495. HVI did not exhibit either willfulness or gross negligence in connection with any of the spills or with respect to the alleged violations of other regulations or statutes.

496. HVI made efforts to improve the oils and gas production facilities it acquired gradually. Dkt. No. 361-5 (Felt Decl.) at ¶ 5.

497. HVI obtained numerous required regulatory permits and was granted operating approvals from many regulatory agencies. Dkt. No. 427-4 (Grewal Decl.) at ¶ 23. A requirement for many of the permits and approval to operate is both scheduled and unscheduled government inspections. Dkt. No. 361-1 (Whalen Decl.) at ¶ 18.

498. This Court finds that the discharges at issue were not the result of gross negligence or willfulness. In many instances, the existing equipment -- which had been installed and maintained by the prior owners -- failed and there was no operator error or negligence. Dkt. No. 442 (Final Pretrial Order) at ww.

499. With respect to some of the spills there is evidence to show that there was no negligence, but that failures with the alarm system were a substantial underlying cause. Dkt. No. 427-4 (Grewal Decl.) at ¶ 55.

500. For example, the parties have stipulated that a cause of the January 5, 2008 Zaca facility spill was the failure of the third party alarm company to notify HVI on the night of the spill of an active high-level alarm on the tank that overflowed. Dkt. No. 442 (Final Pretrial Order) at ww.

501. There was an unusual and severe El Nino condition during late 2007 and early 2008 that led to extreme weather conditions, including very strong winds and heavy rain. Dkt. 427-2 (DeVegar Decl.) at ¶ 27.

502. The heavy rain impacted the clean-up operations after the January 5, 2008 Zaca spill and contributed to the inflated numbers of barrels of produced water during the spill that I understand the Plaintiffs allege in this case. Dkt. 427-2 (DeVegar Decl.) at ¶ 28.

503. The unusual amount of rain during late 2007 and early 2008 was an extreme aberration from the predominantly dry and warm conditions on HVI-CC's oil and gas properties, which get very little to no rain most of the year. Dkt. 427-2 (DeVegar Decl.) at ¶ 31.

504. The December 7, 2007, and January 29, 2008 spills also may have been caused by an intentional act of a third party, which could not have been prevented or avoided by the exercise of due care or foresight. Dkt. No. 427-4 (Grewal Decl.) at ¶ 55.

505. The first major spill on HVI'-CCs oil production facility was in December of 2005 and was a rare failure involving problems with the waste water tank. Dkt. No. 361-4 (Mesard Decl.) at ¶ 24.

506. The other three major spills occurred within six months, between July 2007 and January of 2008. Dkt. No. 427-4 (Grewal Decl.) at ¶ 55

507. HVI has four departments – three of which handle the many tasks relating to operating in an environmentally safe way and complying with the many rules and regulations. Dkt. No. 361-1 (Whalen Decl.) at ¶ 20.

508. HVI is aware of and attempts to follow industry standards. Dkt. No. 427-4 (Grewal Decl.) at ¶ 33; Dkt. No. 361-1 (Whalen Decl.) at ¶ 23.

509. HVI had spent in excess of an estimated $50 million in operating, improving, and maintaining between December 2003 and January 2008. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 38. HVI also spent over $10 million upgrading its alarm systems that warn of equipment failure, overflows and other events that may lead to a spill. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 38.

510. HVI responded to the spills in late 2007 and January of 2008, by appointing a new President, Mr. Andrew DeVegvar to focus on spill prevention and regulatory compliance. Dkt. No. 427-2 (DeVegvar Decl.) at ¶¶ 12, 14. Mr. DeVegvar was responsible, along with HVI employees Ray Marroquin and Jeanette Boyer, for responding to the EPA and the Santa Barbara County's notices of violations. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 32.

511. Mr. DeVegvar helped implement processes of taking steps for the company to satisfactorily meet the regulators' identified compliance requirements by improving the database of alleged violations, prioritizing and attacking such alleged violations, setting up teams for correction efforts, and holding meetings to review progress. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 33.

512. Mr. DeVegvar and HVI's then general counsel, Susan Whalen, worked together to ensure that the SPCC plans were updated. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 37.

513. Mr. DeVegvar also authorized the hiring of between twenty (20) and twenty (25) additional employees, who Mr. Marroquin interviewed and chose in coordination with another HVI employee, Alejandro Pinon, to execute corrective

measures with respect to the January 2008 spill. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 36.

514. HVI held meetings that included Mr. DeVegvar, Ms. Boyer, HVI's quality assurance personnel, and Veronica Hilbrant, personnel manager, every day for a period of time to coordinate and track the company's remedial efforts and specifically, progress with respect to complying with the notices of violations. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 34.

515. In particular, Ms. Hilbrant updated a database, which HVI already maintained, that contained HVI's corrected violations outstanding ones to track the company's progress. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 35.

516. HVI also retained a consultant to strengthen several existing preventative measures and create new ones to address spills and HVI's alleged regulatory noncompliance. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 39. This group of measures was referred to as "Greka Green." Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 40.

517. Though not necessarily part of the "Greka Green" program, HVI's consultant also advised Mr. DeVegvar on his working relationship with the County of Santa Barbara's regulatory agencies, including the Fire Department and Building and Safety Department, to strengthen these relationships. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 41.

518. The first measure to strengthen HVI's surveillance of the facilities by establishing a 24/7 coverage of all the oil fields to improve HVI's ability to prevent, control, and remedy any potential spills and to stop, control, contain, and remedy actual spills. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 42.

519. As part of this measure, HVI hired additional field operators - between six (6) and ten (10) - and transitioned to a seven (7)-on seven (7)-off schedule. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 43. Specifically, field operators in the

evenings inspected tank batteries and wells on a recurrent basis so that they could identify mechanical or technical issues and make proper adjustments to prevent or avoid any spills. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 44.

520. And in the event of a spill, the field operator would stop any drip or spill in the containment areas around the tank batteries and wells to avoid any environmental impact. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 45.

521. After implementing this coverage, HVI did not experience any reported spills during the evenings. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 46.

522. Second, HVI increased and reinforced existing containment berms across the company's oil and gas facilities. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 47.

523. Mr. DeVegvar, and at times with HVI's engineering consultant, Harlan Felt, visited every berm and made a determination as to which berms required improvements. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 48. This was based on his and other HVI employees' recommendations. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 48.

524. One example is the concrete walls that were completed in the Zaca fields, to prevent any leaked oil from making its way outside the containment area. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 49.

525. Third, regulatory compliance was reinforced as HVI's number one priority, even over oil production. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 50.

526. Finally, HVI strengthened its reporting requirements of contacting spills in excess of a barrel of oil to all agencies, including the California Department of Fish and Game, Fire Department, and Department of Building and Safety. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 51.

527. By calling a particular number, these regulatory agencies would be notified of the spill so that they are given the opportunity and option of having their agents inspect and measure the spill. Dkt. No. 427-2 (DeVegvar Decl.) at ¶¶ 52-53.

528. This measure overlapped with an existing regulatory requirement of submitting of a Hazardous Materials Minor Spill and Release Incident Report Form (CAER form) to the Santana Barbara County Fire Department Petroleum Services Division within twenty four hours of any spill, regardless of size. Dkt. No. 427-2 (DeVegvar Decl.) at ¶¶ 51, 54.

529. By requiring both the submission of CAER forms and calling in, HVI aimed to provide transparency and build credibility with the regulatory agencies. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 55.

530. In addition to the "Greka Green" program, HVI established other measures. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 56.

531. These measures included an evaluation of permanently out-of-service equipment throughout the facilities to be slated for subsequent removal and scrapping, including equipment did not overlap with what was already required for regulatory compliance. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 57.

532. HVIC-CC also developed a system wide infrastructure improvement plan to replace equipment that employees considered worn out with new equipment. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 58.

533. At a point in time, HVI had a credit committee, which consisted of HVI employees, including Andy DeVegvar, Susan Whalen, Ernesto Olivares, and Ms. Hilbrant. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 59.

534. Though already in place, HVI increased both the frequency of field operator training and staff meetings in order to reinforce compliance with regulatory requirements. Dkt. No. 427-2 (DeVegvar Decl.) at ¶ 62. If a field operator was found to have been negligent in their duty, regardless of the situation,

but including an oil spill, there is disciplinary action by HVI's management. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 33.

535. HVI has put in place the appropriate response plans. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 45. It sends its employees to federally and/or state approved classes to become HAZPOWER certified, a requirement for spill clean ups so that they are able to, among other things, respond and properly clean up discharges, decontamination, and disposal. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 45.

536. HVI's Internal Compliance safety officer also ensures that employees are receiving their initial HAZWOPER training and certification and recertification once it expires. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 46.

537. There have been no major spills that have escaped confinement since 2010 at HVI's facilities. Dkt. No. 427-4 (Grewal Decl.) at ¶ 58.

538. The EPA has not responded to any of HVI's facilities since December 31, 2010. Dkt. No. 467 (Reich Trial Testimony) at 69:16-19.

1. Other Penalties For Same Incidents

539. Multiple penalties were imposed and are being imposed on the same basic incidents. The same incidents are the alleged bases of several claims by both the federal and state government agencies.

540. First, the United States calculates maximum volume penalties of $114,311,200 for twelve CWA discharge violations that occurred on the eleven facilities at issue here between June 8, 2005, and December 1, 2010.

541. Second, the United States seeks multiple SPCC plan and FRP violations for claims based on violations involving the same eleven facilities during an overlapping time period – from January 12, 2005 until August 1, 2010.

542. Third, the State seeks penalties and recovery costs in excess of $8 million based on six of the same most significant volume spills and on six other

spills occurring on the same facilities (with one exception, the Bradley 3-Island Facility).

543. Finally, HVI already has paid fines to the County of Santa Barbara for some of the incidents in question.

2. History Of Prior Violations

544. HVI has operated in three counties, Santa Barbara, Orange, and Kern. HVI has also been a general partner for an operator in Ventura County, with the same standard operating procedures. Dkt. No. 427-4 (Grewal Decl.) at ¶ 36; Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 101.

545. Prior to, and throughout the relevant time-period, HVI had a clean history with respect to alleged violations. No spill or spills are alleged in this litigation to have occurred in those other counties (Orange, Kern, or Ventura). Dkt. No. 427-4 (Grewal Decl.) at ¶ 36; Dkt. No. 361-2 (Dimitrijevic Decl.) at ¶ 101.

3. Mitigation Efforts

546. HVI has made good faith efforts to mitigate the discharges.

547. The California Department of Fish and Wildlife signed formal sheets stating that no further clean-up was required and sent those to HVI for the Palmer Road Family Line Spill (July 16, 2007); Bell Injection Pond Release (Dec. 7, 2007); Davis Lease Tank Battery Creek Spill (Jan. 5, 2008); and Palmer Road Creek Spill (Jan. 29, 2008). *See* TREX HVI0024 (July 16, 2007); TREX HVI0018 (Dec. 7, 2007); TREX HVI0019 (Jan. 5, 2008); TREX HVI0020 (Jan. 29, 2008).

548. Fifteen days after the July 16, 2007 spill, both the US EPA and CDFG stated to HVI that "no further clean-up was required." TREX HVI0024.

549. Twelve days after the December 7, 2007 spill, the CDFG stated to HVI that "no further clean-up was required." TREX HVI0096 (December 7, 2007 Sign Off).

550. Thirty-one days after the January 5, 2008 spill, the CDFG stated that "no further clean-up was required" from the entire spill path up to the Chamberlin Fence, and again on May 2, 2008, the CDFG executed a Sign Off Sheet for the remaining area. TREX HVI0019 (February 5, 2008 Sign Off); TREX HVI0093 (May 2, 2008 Sign Off).

551. Six days after the December 27, 2008 spill, the CDFG stated to HVI that "no further clean-up was required." TREX HVI0094 (December 27, 2008 Sign Off).

552. Eleven days after the May 1, 2009 spill, the CDFG stated to HVI that "no further clean-up was required." TREX HVI0095 (May 1, 2009 Sign Off).

553. In less than a week after the October 14, 2010 spill, CDFG stated the cleanup process was completed. TREX US0569 at DFG002801 (Oct. 14, 2010 Narrative/Supplemental Report).

554. Twenty days after the December 21, 2010 spill, both the Santa Barbara County Planning and Development and DOGGR stated to HVI that the site was fully remediated. Dkt No. 361-2 (Dimitrijevic Decl.) at ¶ 99.

555. Melissa Boggs, a Senior Environmental Scientist with OSPR who has responded to approximately ten discharges from HVI facilities over the years, could not recall any examples where HVI failed to promptly notify the required authorities of a spill. Dkt. No. 478 at 14:18-21 (10/22/18 Trial Tr. Vol. II, Test. Of Boggs).

4. Economic Impact

556. The parties mutually agreed to withdraw and not offer into evidence the related testimony and documentary evidence pertinent to the "economic impact" factor. Dkt. No. 443 (Order Re: Economic Impact of Penalties on the Violator).

557. Accordingly, this factor will not be considered by the Court.

5. Other Matters As Justice May Require

558. A consideration of the full facts, through the lens of justice and equity, supports a reduced civil penalty under the CWA.

559. While accidental oil spills are not a matter to take lightly, it is undeniable that oil and gas producers, such as HVI, provide a needed resource. Oil is a necessary component in nearly every consumer product. Oil is a resource that drives new technologies, jobs, and economic growth.

560. HVI has proven through its actions that it is a responsible operator and producer. HVI has faced obstacles from many who would prefer not to have any oil – onshore or offshore produced in Santa Barbara.

561. The oil released or oil and produced water were released far from the ocean or shore; was removed to the satisfaction of the state and federal agencies; no people were threatened with harm; and there is no evidence of lasting environmental harm.

562. These facts should be considered under the final penalty factor. Accordingly, the maximum Amount should be greatly reduced.

K. CALIFORNIA STATE CLAIMS

563. The State of California is seeking volume based penalties under California Water Code Section 13350 for four specific spills: July 16, 2007, December 7, 2007, January 5, 2008, and January 29, 2008.

564. Liability under Section 13350 requires that a defendant acts intentionally or negligently in connection with the discharge.

565. There is no liability if the discharge was caused by events beyond the discharger's control, including any circumstances or event which caused the discharge despite the exercise of every reasonable precaution to prevent or mitigate the discharge. *City of Modesto Redevelopment Agency v. Superior Court*, 119 Cal.App.4th 28, 43 (2004).

566. HVI neither acted intentionally nor negligently regarding the discharge that occurred on January 5, 2008.

567. As documented by Warden Dostal, the alarm system functioned properly for the Davis Tank Battery before the discharge occurred, however, the third-party alarm company HSM Electronic Protection Services did not attempt to notify HVI that the high fluid level alarm was triggered due to HSM's operators being overloaded with calls because of heavy rains. TREX US0195 at 6 (Investigation Report); Dkt. No. 467 at 46:22-49:13 (10/22/18 Trial Tr. Vol. I, Test. of Dostal).

568. Therefore, HVI exercised reasonable care as a prudent operator in maintaining an effective alarm system to prevent a discharge. The failure of a third-party company to do its job, and notify HVI, was not within the control of HVI.

569. Because HVI did not intentionally cause the discharge on January 5, 2008, and because HVI was not negligent in maintaining the alarm system or in failing to respond to a high fluid level threat, it should not be liable under Cal. Water Code § 13350.

570. Accordingly, the volume of the three applicable spills (July 16, 2007, December 7, 2007, and January 29, 2008) is 190 barrels of crude oil and 1,057 barrels of produced water.

571. Under the mitigating circumstances and analysis provided within the CWA penalty factors (*see* Section M), demonstrating that any spill was a result of ordinary negligence at most, the penalties that should be imposed are $5 per barrel of crude oil and $1 per barrel of produced water.

572. Thus, the amount in penalties for the barrels of crude oil discharged is $950 and produced water is $1,057.

573. The State also seeks civil penalties, natural resources damages, and/or administrative costs under California Fish & Game Code Sections 5650 *et seq*., 12016, 13013 for events occurring on December 7, 2007, January 5, 2008, January 24, 2008, January 27, 2008, January 29, 2008, December 27, 2008, May 1, 2009, July 2, 2009 and October 14, 2010.

574. Specifically, under Section 5650, the State seeks the maximum penalty allowed which is *up to* $25,000 per day, totaling $700,000. This, however, is unsupported by the evidence in that the majority of penalties sought were for discharges of ten barrels of crude oil or less.

575. Furthermore, HVI maintains that the evidence confirms that the State cannot prove that all spills occurred in places where it can pass into the waters of California, nor that the spills were deleterious to fish, plant life, mammals or bird life.

576. Therefore, the maximum per day penalty under Section 5650 should be $1,000, for a total of $28,000.

577. The State also seeks $75,365 in Natural Resources Damages under Section 12016 and $123,163 for Administrative Costs under Section 13013.

578. Accordingly, after consideration of the applicable mitigating factors, the State is entitled, at most, to $2,007 under Cal. Water Code §13350; $28,000 under Cal. Fish & Game Code §5650; its claimed damages of $75,365 for Natural Resources Damages; and $123,163 for administrative costs.

L. INJUNCTIVE RELIEF IS NOT APPROPRIATE OR NEEDED

1. No Notice of Violation Regarding SPCC

579. HVI has SPCC plans for all of its HVI facilities. Dkt. No. 467 at 86:19-20 (10/23/18 Trial Tr. Vol. I, Test. of Reich).

580. Plaintiffs' expert, Kinworthy, confirms that the SPCC plans that he reviewed as part of his work in this case are sufficient to comply with legal

requirements as of April 11, 2017, the date of his deposition. Dkt. No. 479 at 36:07-13 (10/23/18 Trial Tr. Vol. II, Test. of Kinwothy).

581. EPA's SPCC inspector, Peter Reich, performed twelve (12) different inspections at HVI's facilities: three inspections in 2005, one in 2007, six in 2008, and two in 2016. Dkt. No. 467 at 64:16-25 (10/23/18 Trial Tr. Vol. I, Test. of Reich).

582. Since Mr. Reich's first visit to an HVI facility in 2005, he believes that HVI is much more familiar and aware of the regulatory requirements around the SPCC regulations and as such, they have been working to comply with the regulations and remain in compliance. Dkt. No. 467 at 68:05-17 (10/23/18 Trial Tr. Vol. I, Test. of Reich).

583. During those sessions, when Mr. Reich was working with HVI employees, he believed that they were diligently working to try to understand what he was saying and make the improvements. Dkt. No. 467 at 69:05-09 (10/23/18 Trial Tr. Vol. I, Test. of Reich).

584. The fact that there has been a reduction in the number of spills at HVI that the EPA has responded to is one reason Mr. Reich believes HVI now has a better understanding about the SPCC requirements. Dkt. No. 467 at 69:10-15 (10/23/18 Trial Tr. Vol. I, Test. of Reich).

585. In 2016, Mr. Reich inspected HVI's Zaca facility and Bell facility for any SPCC violations. Dkt. No. 467 at 65:14-16 (10/23/18 Trial Tr. Vol. I, Test. of Reich).

586. The EPA did not issue any notices of violations for HVI's Bell and Zaca facilities as a result of the 2016 inspections. Dkt. No. 467 at 65:14-21 (10/23/18 Trial Tr. Vol. I, Test. of Reich). Specifically, nothing rose to the level at which inspectors decided to have the EPA issue a notice of violation. Dkt. No. 467 at 65:20-66:03 (10/23/18 Trial Tr. Vol. I, Test. of Reich).

587. No discharge occurred at the Zaca facility in the past three (3) years, as of February 10, 2016, the date of Mr. Reich's inspection. Dkt. No. 467 at 66:19-22 (10/23/18 Trial Tr. Vol. I, Test. of Reich); TREX US2859.

588. No discharge of more than 1,000 U.S. gallons of oil in the single reportable discharge occurred in the prior year at the Bell facility, as of February 9, 2016, the date of Mr. Reich's inspection. Dkt. No. 467 at 66:23-67:07 (10/23/18 Trial Tr. Vol. I, Test. of Reich); TREX US2859.

589. In addition, there were not more than two discharges of more than 42 gallons in the prior year at the Bell facility. Dkt. No. 467 at 67:08-10 (10/23/18 Trial Tr. Vol. I, Test. of Reich); TREX US2859.

2. No Impact on a TNW

590. The EPA has not responded to any spills at any of HVI's facilities, since December 31, 2010. Dkt. No. 467 at 69:16-19 (10/23/18 Trial Tr. Vol. I, Test. of Reich).

591. All reported spills to the National Response Center ("NRC") or the California Office of Emergency Services ("OES") would trigger back to the office of the EPA. Dkt. No. 467 at 84:06-16 (10/23/18 Trial Tr. Vol. I, Test. of Reich).

592. The NRC is a repository for all spills reported to the NRC by operators "where typically there is a discharge that impacts a navigable water or its adjoining shoreline." Dkt. No. 467 at 81:01-06 (10/23/18 Trial Tr. Vol. I, Test. of Reich).

593. There are no NRC reports associated with any of HVI's facilities for the period of 2011 through 2018. Dkt. No. 449-003 (TREX HVI0132). The EPA has not provided any reason to believe that HVI has failed to meet all of its reporting requirements from December 31, 2010 until today. Dkt. No. 467 at 86:04-16 (10/23/18 Trial Tr. Vol. I, Test. of Reich).

594. Since 2017, there have been eleven (11) spill reports from the Cal Office of Emergency Services (OES) in connection with HVI's oil and gas

facilities: seven (7) in 2017 and four (4) in 2018. Dkt. No. 449-1 (TREX HVI0130).

595. All of the eleven (11) spills were stopped or contained by the time they were reported. Dkt. No. 449-2 (TREX HVI0131).

596. None of the eleven (11) spills were reported to have (a) been released into water; (b) impacted any waterway; (c) caused any known impact; and (d) caused any injuries, fatalities, or required evacuation. Dkt. No. 449-2 (TREX HVI0131).

597. Only three of these spills have been reported to have left or "broke" the containment, and even these releases remained on HVI's facilities: (1) Cal OES 18-0740, (2) Cal OES 17-6845, and (3) Cal OES 17-4614. Dkt. No. 449-2 (TREX HVI0131).

598. One of these three spills, Cal OES 17-6845, was caused by a third party, the County of Santa Barbara Public Works Roads Division. Dkt. No. 449-2 (TREX HVI0131). Specifically, while performing weed abatement approximately 150 feet outside the entrance to the Greka Oil & Gas, one of their mowing tractors ran over a 2" valve knocking it off the top of a 6" oil and water pipeline. Dkt. No. 449-2 (TREX HVI0131).

3. The Reported Discharge Volume Are Small

599. As Plaintiffs' admit, the reported volumes for these spills were generally small. Dkt. No. 345-2 (Reich Decl.) at ¶ 74; Dkt. No. 467 at 66:19-22 (10/23/18 Trial Tr. Vol. I, Test. of Reich). Specifically, the volumes of these spills ranged between less than one barrel to six barrels of released fluid with the exception of one spill that occurred on or around March 6, 2018. Dkt. No. 449-2 (TREX HVI0131).

Date	CAL OES	Reported Spill Volume
3/23/2018	18-1930	6 bbls

Date	CAL OES	Reported Spill Volume
3/6/2018	18-1482	40 bbls
2/20/2018	18-1143	5-6 bbls
2/1/2018	18-0740	5 bbls
9/21/2017	17-6845	5 bbls
8/31/2017	17-6310	5 bbls
8/15/2017	17-58662	8 bbls
8/10/2017	17-5745	42 gallons or 1 bbl
6/27/2017	17-4614	4 bbls
4/4/2017	17-2588	35-40 gallons (less than 1 barrel)
2/21/2017	17-1578	4-5 bbls

Source: Dkt. No. 449-2 (TREX HVI0131), at Exhibit 2-21.

600. Though plaintiffs state that the 2017 and 2018 reported spills are releases of crude oil (Dkt. No. 345-2 (Reich Decl.) at ¶ 82), a closer look at the Cal OES reports shows that the substance of these releases comprise of both oil and produced water.

Date	CAL OES	Reported Substance
3/23/2018	18-1930	Crude oil and Produced water
3/6/2018	18-1482	oil and water
2/20/2018	18-1143	crude oil and water
2/1/2018	18-0740	oil and water
9/21/2017	17-6845	oil, crude (produced water)
8/31/2017	17-6310	oil and water
8/15/2017	17-58662	produced water w/trace of crude
8/10/2017	17-5745	crude oil
6/27/2017	17-4614	oil, water
4/4/2017	17-2588	light crude oil
2/21/2017	17-1578	crude oil

Source: Dkt. No. 449-2 (TREX HVI0131), at Exhibit 2-21.

601. Notably, HVI's Produced Water to crude oil ratio is approximately 25:1. Dkt. No. 478 at 91:21-23 (10/22/18 Trial Tr. Vol. II, Test. of Kharaka).

602. HVI's Produced Water is 98-99% pure water, with the remaining 1-2% as mostly sodium chloride (salt). Id. at 92:13-23.

603. In addition, the government's hydrogeochemist expert, Dr. Kharaka, had already confirmed that the Produced Water from HVI's releases had little to no documented negative impacts on the affected habitat, surrounding wildlife or humans.

4. The Recent Spills Were Not All Caused By HVI's Flowlines

604. Most importantly, Plaintiffs proffer no evidence that spills after 2010 are a result of HVI's flowlines, other than a cursory review of the Cal OES spill reports. Dkt. No. 453 (TREX US3241).

605. Based on their review of the Cal OES spill reports, the EPA contends that most of these spills stemmed from HVI's flowlines (Dkt. No. 345-2 (Reich Decl.) at ¶ 82), and according to the EPA, if a spill occurs from a flowline within a facility, then the spill would be "immediately outside of any secondary containment" (Dkt. No. 467 at 79:24-80:01 (10/23/18 Trial Tr. Vol. I, Test. of Reich)).

606. However, a closer look at the Cal OES reports shows that only three of these spills (a) were from HVI's flowlines and (b) left the secondary containment. Dkt. No. 449-2 (TREX HVI0131) (Cal OES Reports 14-6845, 17-6310, and 17-4614). Furthermore, one of these three spills was caused by a third party, the County of Santa Barbara Public Works Roads Division. Dkt. No. 449-2 (TREX HVI0131) (Cal OES Report 17-6845).

607. The CDFW believes that HVI was at a standard level for the industry, in that area, in responding to controlling in the cleanup of oil spills by April of 2010. Dkt. No. 465 at 84:14-18 (10/22/18 Trial Tr. Vol. I, Test. of Gross).

608. The CDFW also believes that HVI's skill level with cleanup increased quite a bit from 2007 to April of 2010. Dkt. No. 465 at 98:11-14 (10/22/18 Trial Tr. Vol. I, Test. of Gross).

609. As noted above, Plaintiffs believe that HVI now has a better understanding about the SPCC requirements as shown in the reduction of the number of spills that the EPA has responded to at HVI's facilities. Dkt. No. 467 at 69:10-15 (10/23/18 Trial Tr. Vol. I, Test. of Reich).

610. Each facility's SPCC plan specifically references the existence and implantation of a flowline maintenance program. See e.g., TREX2982 (2010 Security Facility SPCC Plan) at HVI001531; TREX2978 (2011 Los Flores facility SPCC Plan) at HVI001637; TREX2967 (2011 Escolle facility SPCC Plan) at HVI001425; TREX2964 (2011 Casmalia facility SPCC Plan) at HVI001340; TREX2970 (2013 Bell facility SPCC Plan) at HVI023188; and TREXUS2976 (2013 Zaca facility SPCC Plan) at HVI02338.

5. The Impending Change to the 2015 WOTUS Rule Further Demonstrates Injunctive Relief is not Warranted.

611. Due to consistent criticism from the Supreme Court, lower courts, the President, and even the EPA in applying the significant nexus test, the 115th Congress made numerous attempts to repeal the 2015 WOTUS Rule, including H.R. 1105 which sought to repeal the rule, and H.R. 1261 which sought to narrow the definition of waters subject to CWA jurisdiction. Members in the House and Senate have proposed resolutions expressing the sense that the rule should be withdrawn or vacated (H.Res. 152 and S.Res. 12). Two House-passed appropriations bills (H.R. 3219 and H.R. 3354) contained provisions that would authorize withdrawal of the rule.

612. Further, President Trump's February 28, 2017 Executive Order 13778, entitled "Executive Order on Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the 'Waters of the United States' Rule" directs the EPA to

consider the interpretation of the WOTUS Rule consistently with Justice Scalia's plurality opinion in *Rapanos*, rejecting Justice Kennedy's "nexus" test.

613. In accordance with Executive Order 13778, the EPA in conjunction with the Army, published the Revised Definition of "Waters of the United States," Docket No. EPA-HQ-OW-2018-0149 published on December 11, 2018 ("2018 Rule"), which proposes to reject the Kennedy "nexus" test in *Rapanos*. The revised 2018 Rule is expected to be made final by the end of 2019.

614. Additionally, the President's March 28, 2017 Executive Order 13783, entitled "Promoting Energy Independence and Economic Growth" requires federal agencies to review any regulations that could "potentially burden the development or use" of energy resources based on the public policy favoring development of American energy resources and "avoid[] regulatory burdens that unnecessarily encumber energy production."

615. Therefore, the Government's attempt to apply the significant nexus test in order to impose extreme injunctive relief is inappropriate in that it violates Executive Orders 13778 and 13783, and, because the Government is not likely to have jurisdiction over HVI's ephemeral creeks in a matter of months with the revised WOTUS Rule.

Dated: February 4, 2019 DIAMOND MCCARTHY LLP

By: */s/ Christopher D. Sullivan*
Christopher D. Sullivan
Attorneys for Defendant,
HVI Cat Canyon, Inc.
f/k/a Greka Oil & Gas, Inc.